

# **International Dictionary of University Histories**





**INTERNATIONAL DICTIONARY OF**  
**UNIVERSITY HISTORIES**

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**INTERNATIONAL DICTIONARY OF**  
**UNIVERSITY HISTORIES**

Edited by

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and

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## CONTENTS

<b>Editor's Note</b>	xiii
<b>Contributors</b>	xv
<b>Prefatory Essay by A.H.T. Levi: The University Movement</b>	xvii
<b>The Dictionary:</b>	1
Aalborg University	3
Aarhus University	6
Al-Azhar University	9
Albert Ludwigs University	14
Aligarh Muslim University	18
Amherst College	21
Antioch University	25
Atlanta University Center	30
Barnard College	34
Beijing University	38
Boston University	42
Brandeis University	46
Brigham Young University	51
Brown University	56
Bryn Mawr College	60
California Institute of Technology	64
Case Western Reserve University	69
Charles University	74



Chinese University of Hong Kong .....	78
The Citadel: The Military College of South Carolina .....	81
City University of New York .....	85
Claremont Colleges .....	94
College of Mexico .....	99
College of William and Mary .....	101
Columbia University .....	105
Complutense University of Madrid .....	109
Cooper Union for the Advancement of Science and Art .....	112
Cornell College .....	117
Cornell University .....	121
Dartmouth College .....	126
Doshisha University .....	131
Duke University .....	135
Eberhard Karls University of Tübingen .....	140
École Nationale d'Administration .....	144
École Normale Supérieure .....	148
École Polytechnique .....	152
Emory University .....	156
Federal Institute of Technology .....	160
Federal University of Rio de Janeiro .....	164
Free University of Berlin .....	167
Gallaudet University .....	169
Georgetown University .....	173
Georgia Augustus University of Göttingen .....	177
Guilford College .....	181
Harvard University .....	185
Hebrew University .....	190



Howard University .....	195
Humboldt University .....	200
Illinois Institute of Technology .....	205
Indian Agricultural Research Institute .....	209
Indiana University .....	213
Indian Institutes of Technology .....	217
Jagiellonian University .....	220
Jawaharlal Nehru University .....	224
Johns Hopkins University .....	228
Keio University .....	233
Kyushu University .....	238
Laval University .....	241
Leipzig University .....	246
Loránd Eötvös University .....	249
Ludwig Maximilians University of Munich .....	253
Martin Luther University of Halle-Wittenberg .....	256
Massachusetts Institute of Technology .....	260
McGill University .....	265
Michigan State University .....	270
Mount Holyoke College .....	275
M.V. Lomonosov Moscow State University .....	280
National Autonomous University of Mexico .....	285
National University of Ireland .....	288
National University of San Marcos .....	292
New School for Social Research .....	295
New York University .....	300
Northeastern University .....	304
Northwestern University .....	308



Oberlin College .....	313
Ohio State University .....	318
Oregon State University .....	322
Philipps University of Marburg .....	327
Princeton University .....	330
Purdue University .....	335
Radcliffe College .....	339
Reed College .....	344
Rice University .....	349
Ruprecht Karls University .....	353
Rutgers: The State University of New Jersey .....	356
St. John's College .....	360
Seoul National University .....	364
Smith College .....	368
Stanford University .....	373
State University of New York .....	379
Strasbourg University .....	383
Tata Institute of Fundamental Research .....	388
Technion—Israel Institute of Technology .....	391
Tufts University .....	395
Tulane University .....	398
United States Military Academy at West Point .....	403
United States Naval Academy .....	408
University of Aberdeen .....	412
University of Aix-Marseille .....	417
University of Alcalá de Henares .....	420
University of Arizona .....	423
University of Barcelona .....	426



University of Bordeaux . . . . .	429
University of Buenos Aires . . . . .	432
University of California . . . . .	436
University of Cambridge . . . . .	445
University of Canterbury . . . . .	452
University of Cape Town . . . . .	456
University of Chicago . . . . .	460
University of Chile . . . . .	464
University of Coimbra . . . . .	468
University of Cologne . . . . .	472
University of Copenhagen . . . . .	475
University of Dublin Trinity College . . . . .	480
University of Durham . . . . .	486
University of Edinburgh . . . . .	490
University of Florence . . . . .	495
University of Glasgow . . . . .	498
University of Granada . . . . .	502
University of Illinois . . . . .	506
University of Iowa . . . . .	511
University of Leiden . . . . .	516
University of London . . . . .	522
University of Louvain . . . . .	529
University of Manchester . . . . .	533
University of Melbourne . . . . .	536
University of Michigan . . . . .	539
University of Minnesota . . . . .	544
University of Missouri . . . . .	549
University of Montpellier . . . . .	553

University of Mumbai (Bombay) .....	558
University of North Carolina .....	563
University of Notre Dame .....	567
University of Orléans .....	572
University of Oxford .....	576
University of Paris .....	580
University of Pennsylvania .....	588
University of Pisa .....	592
University of Poitiers .....	596
University of Rochester .....	599
University of St. Andrews .....	604
University of Salamanca .....	607
University of Seville .....	612
University of Siena .....	615
University of Southern California .....	619
University of Sydney .....	623
University of Texas System .....	630
University of the South .....	636
University of the Witwatersrand .....	642
University of Tokyo .....	647
University of Toronto .....	652
University of Valencia .....	656
University of Vienna .....	660
University of Virginia .....	663
University of Wales .....	668
University of Washington .....	672
University of Wisconsin .....	677
Uppsala University .....	681



Vanderbilt University .....	686
Vassar College .....	690
Visva-Bharati University .....	695
Washington and Lee University .....	698
Washington University .....	701
Weizmann Institute .....	705
Wellesley College .....	708
Willamette University .....	714
Williams College .....	718
Yale University .....	722
<b>Index</b> .....	<b>729</b>
<b>Notes on Contributors</b> .....	<b>773</b>
<b>Photograph Acknowledgments.</b> .....	<b>779</b>

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## EDITOR'S NOTE

Fitzroy Dearborn's *International Dictionary of University Histories* provides detailed and accurate information on selected universities, colleges, and research centers from many nations around the world. Although there are more than 200 institutions represented, this book does not intend to provide a comprehensive listing of universities of the world. Rather, the institutions presented here have been selected as representatives of educational institutions that have arisen to fulfill different educational needs, regional demands, and philosophical goals. Whether political, religious, ideological, or communal in foundation, however, these universities work toward one common goal—increasing knowledge and expertise.

The *International Dictionary of University Histories* covers universities that have been in operation for 1,000 years, such as Al-Azhar in Cairo, Egypt, founded in 972, and much newer institutions, such as the New School for Social Research in New York City, founded in 1919. There are schools that provide education to a broad base of students who are interested in a wide range of studies, such as the many U.S. universities produced by the Morrill Act of 1862, which granted 30,000 acres to 70 institutions that became the foundation of the nation's state university system. Others arose to meet the needs of under-represented groups. Mount Holyoke became the first women's college in the United States in 1837. Atlanta University, now part of the Atlanta University Center in Georgia, was founded in 1865 to educate the newly freed black slaves. Gallaudet, in Washington D.C., centers its educational needs on the deaf community. Laval University in Canada provides the largest higher-education francophone institution outside of Europe. Brandeis provided educational opportunities to Jewish students when options at other American universities were limited.

Each entry in the *International Dictionary of University Histories* outlines the history of the institution, providing descriptive and contact information at the beginning of each entry, and an essay that unfolds chronologically, emphasizing the particular importance of the institution and the role it has historically strived to fill as well as the role it continues to fill for its community. The essays provide the origins of the institutions, with the original names and founders, and cover

the shifting focus of the universities, and education in general, over time. The entries end with an annotated list, when available, of books published in English on the history of the university or aspects that relate to that history.

Our contributors and editors have made extensive efforts to ensure the accuracy of the information presented here: sources include the offices of the universities, published books, primary documents, and web sites for various institutions. The universities have been particularly generous with publications, brochures, photos (many of which are included here), and personal assistance. Without their contributions, this publication would have been much more difficult to execute. Many individuals, too many to name here, provided help above and beyond the call of their jobs.



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## PREFATORY ESSAY: THE UNIVERSITY MOVEMENT

As it is now used, the term *university* derives from the Latin abbreviation of the phrase *universitas magistrorum et scholarium* (university of masters and students), which denoted the corporate aspect of a community of teachers and scholars, shortened to the simple *universitas* by the late fourteenth century. The Latin term *universitas* succeeded the term *studium generale*, used in the thirteenth century for a group of teachers and students who had come together, normally from different places, and who were usually claiming the sort of protection and exemptions often afforded in medieval towns to guilds of immigrant craftsmen practicing the same trade and to other communities of foreigners, often businessmen.

The earliest “universities” were national associations of foreign students attending the law schools at Bologna in the late twelfth century, forerunners of the “nations” into which student bodies were divided in late medieval universities. At Vercelli, for instance, there were Italian, English, Provençal, and German groups, and at Paris a French “nation,” which included Spaniards, Italians, and Greeks; the Picard nation, which included students from the Low Countries; the Norman nation; and the English nation, which included German-speakers. The teaching body consisted of those on whom membership had been conferred by the grant, normally from ecclesiastical authority, of a license to teach. Any recognized teaching corporation possessed the right to award its own degrees, ■ privilege that is still regarded as constitutive of university status.

Naturally, the bestowal of guild privileges on any group of scholars, or scholars and teachers, depended on recognition by civil authorities. Since the *studia* overwhelmingly consisted of clerical communities, they were also often licensed by ecclesiastical authority, which could reasonably wish to control the teaching of theology and the subjects (such as astronomy) that bore on it. Much in the early history of the universities is illustrated by the fact that the Paris masters put themselves under papal protection, ultimately finding themselves exempt from the jurisdiction of the bishop of Paris and the chancellor of Notre Dame but bound from 1246 to a considerable measure of papal control. At Oxford, on the other hand, where the university did not grow out of a cluster of monastic and cathedral schools, the ultimate authority was retained by the king.

Oxford quickly developed a freer, more empirical tradition than Paris, more clearly oriented toward scientific and mathematical pursuits.

Both Paris and Oxford were founded as universities by approximately 1200, although each can date its foundation to a variety of years, depending on the dates at which different corporate privileges were bestowed on the community of teachers and scholars. Oxford may well have been established by the return of English scholars from Paris, already at the center of theological teaching, after political relationships deteriorated in 1167. At Paris, in particular, some continuity can be traced between the *studium* recognized in the early thirteenth century and the seven or eight monastic and cathedral schools of the early twelfth century, although the curriculum changed. The practical arts of the *quadrivium* (arithmetic, music, geometry, and astronomy) were jettisoned in statutes promulgated in 1215, and in the trivium the role of rhetoric was reduced in favor of the other two disciplines—logic and grammar.

By the twelfth century there had been, alongside the monastic and cathedral schools, itinerant teachers, such as Peter Abelard, whose activities involved setting up short-lived “schools” as near Paris as possible, but outside the reach of authorities. We know the names of a number of itinerant teachers in or near Paris in the early twelfth century, and their existence influenced the terms of the license of subsequent masters, who were endowed with the *facultas obique docendi* (license to teach anywhere), allowing them to teach at whichever center they pleased. By the end of the thirteenth century, when there were already 22 universities, 5 on the Iberian peninsula, 2 in England, 5 in France, and 10 on the Italian peninsula, the power of conferring the right to teach anywhere was considered by the jurists constitutive of the *studium generale*. In 1233 Gregory IX issued a bull specifically adding that power to the privileges granted to Toulouse in 1229.

The monastic and then the cathedral school had catered, no doubt more or less adequately, to the need (as perceived by civil and ecclesiastical sovereigns) for trained doctors, lawyers, administrators, and a literate clergy. As early as the ninth century, there had been disputes in the monasteries about the propriety of taking pupils not destined to become monks. Medicine was being taught in a separate specialist institution in Salerno. About the same time, a growing tension between the rival claims of military and spiritual sovereignties in Europe was sparking a revival of interest in legal studies.

Demands for professional training were being created that the monastic and cathedral schools were no longer able to meet, and by 1200, with the emergence of the early universities, the arts were already separating from the study of theology and the other professional disciplines (medicine and civil law, to which canon law soon formed the counterweight). In the late medieval universities, the arts course was generally taught by students in one of the four graduate disciplines of theology, medicine, canon law, and civil law. By the mid-twelfth

century, Paris had become the most important center of teaching and study north of the Alps. A vortex was generated in which Paris, offering the largest audiences to masters, also increasingly offered the greatest concentration of the best masters and potential patrons to students. Virtually every one of the great scholastic theologians of the thirteenth century either taught or studied at Paris.

Not only did the masters take pupils into residence, forming the ground plan of what would become, as at Oxford and Cambridge, a collegiate university, but more importantly for the growth of the university, they attracted the newly founded religious orders. The Dominicans and Franciscans established their own *studia generalia* in Paris, at first simply reinforcing the institutional development, although soon creating rivalries within it. By 1200 there were probably between 3,000 and 4,000 students in Paris, perhaps a tenth of the total population, with probably about 150 masters, of whom 100 taught in the arts faculty, 20 each in law and medicine, and 8 in theology.

Trouble broke out in Paris in 1270 and in both Paris and Oxford in 1277 when various series of propositions, in which it was stated or implied that human reason reached conclusions incompatible with religiously revealed truth, were condemned. By that date the discipline of logic or dialectic had broken off from theology and gained autonomy to become a fundamental determinant in the subsequent development of the late medieval university system. During the fourteenth and fifteenth centuries, the proliferation of universities reflected political efforts to establish national or ecclesiastical authority.

Such early twelfth and thirteenth-century Italian universities as Reggio, Modena, Vicenza, Padua, and Vercelli appear to have arisen independently of any original action of civil or ecclesiastical authority, but Orléans, Poitiers, and Bourges all profited from the banning of civil law at Paris, where there was political hostility to the loose federation of towns and states that the Holy Roman Empire had fallen into. There was understandably no enthusiasm in the administration for promoting the authority of later imperial Roman legislation. Naples was founded by the emperor Frederick II in 1225 to provide adequate instruction in the arts, theology, jurisprudence, and medicine on his own territory, although he suppressed medicine at Naples in favor of Salerno in 1231. Cologne (1388) and Heidelberg (1389) were universities sponsored by the Roman popes on the German-speaking territory of the disintegrating remnants of the empire to reduce the advantages enjoyed by the Avignon popes at Paris. Poitiers (1431) and Caen (1432) were by-products of the English occupation of northern France, intended to tighten a cultural stranglehold.

When in 1533 the continental theological faculties were invited to pronounce on the validity of the marriage between Henry VIII and Catherine of Aragon, whom the king wished to repudiate, the faculties without exception decided in accordance with the reigning monarch's political interests. To no one's surprise, in the imperial territories, Spain and the Netherlands (notably at Louvain),



Naples, Salamanca, Alcalá, and Granada, the arguments opposing the nullity were found stronger, as they were by Luther and most German-speaking canonists on the emperor's territory. Henry's case was just as naturally held to be the weightier by Oxford, Cambridge, Paris (in accordance with the policy of François I), Orléans, Angers, Bourges, Toulouse, Bologna, Siena, Pavia, and Padua, all politically hostile to the emperor Charles V.

Universities, although centers of instruction, were also being founded for political purposes and could normally be expected to respond to the political constraints occasioned locally during Europe's late medieval and Renaissance power struggles. The funding of teaching posts was achieved decreasingly from fees and increasingly through benefices, which were turned into a financial instrument by which excessive ecclesiastical revenues were diverted to the sovereign, whether monarch or pope, to be used for secular and sometimes educational purposes throughout Europe. In particular they were used to support the chancelleries of the new nation states by the device of bestowing ecclesiastical appointments to be held *in commendam* by civil administrators, sometimes clerics only in name. The revenues accruing to abbacies, priories, canonries, and other benefices were attributed, often in plurality, to these administrators and, in their wake, to holders of university offices, who were not expected to reside in the priories or abbeys from which their revenues were drawn. Many universities also benefited from substantial municipal and private patronage, but most were ultimately funded, and therefore controlled, by the territorial sovereign or by ecclesiastical patronage.

Bologna had arisen without a charter, as did Reggio, Modena, Vicenza (the result of a migration from Bologna in 1204), Padua (the result of a similar migration in 1222), and, much later, Siena, which was granted a charter by the emperor Charles IV on a petition from the citizens. The charter was confirmed by Pope Gregory XII in 1408. In 1228 the town of Vercelli appears to have guaranteed the students of Padua the right to rent no less than 500 lodging houses for a fixed rent for eight years, but by the late fourteenth century, the university there had ceased to operate. The first university anywhere constituted by papal charter was that of Toulouse, founded in 1233 by Gregory IX as part of an attempt to extirpate Albigensianism.

The emperor Charles IV bestowed a charter on Arezzo in 1355, after an influx of jurists from Bologna had settled there in 1215, and established Pavia as a university in 1361. In 1398 Pavia was amalgamated with Piacenza (chartered in 1240) by the Visconti rulers of Milan; then the independent existence of Piacenza university ceased. The university of Rome, which continued through the Avignon papacy, was founded by Boniface VIII in 1303, although in 1318 John XXII limited its power of conferring degrees to civil and canon law. From the early fourteenth century, the growth, development, peregrinations, and extinction of the Italian centers of learning were governed by the incidence of plague, the

interplay of municipal and regional political interests dominated by the grand families, and the rivalry between popes and emperors.

Early in the thirteenth century, Cambridge had been founded by a group of scholars fleeing the hostility of the Oxford townspeople in 1208–9, and its numbers were subsequently augmented by an influx from Paris in 1228. By 1225 it was certainly a university in the sense that the bishop of Ely was treating it as a separate canonical society. In 1231 the king granted it substantial privileges at the same time as they were granted to Oxford, and by 1233 Gregory IX could issue a bull addressed to the chancellor and university, confining jurisdiction over the *studium* to their own chancellor, or to the bishop. The constitutional model was Paris, not yet removed from local jurisdiction, but the student hostels at Cambridge were fewer and larger than at Oxford. The first college, Peterhouse (1284), was modeled on Oxford's Merton College. Although three universities were established in Scotland during the fifteenth century (St. Andrews, Glasgow, and Aberdeen), the monopoly of university education in England was confined to Oxford and Cambridge until the nineteenth century, no doubt to the detriment of the country's educational system.

A medical school was opened to all qualified teachers at Montpellier, to which was added a school of jurisprudence before the end of the twelfth century. Petrarch was sent to study law there, and the institution, now including a school of arts, was raised to the rank of *studium generale* by Nicholas IV in 1289. There is some evidence that theology was also being taught there by 1289, although the theology faculty was not formally recognized until 1421. The term *generale* applied to *studium* began to refer to the spread of disciplines. Universities came finally to be distinguished from unidisciplinary schools of professional training, such as that devoted to medicine at Salerno.

Orléans was functioning as a university soon after Toulouse in the early thirteenth century but was given corporation status by Clement V only in 1305. After Orléans came Angers (also catering to the civil law excluded from Paris), and Avignon and Cahors, especially favored by John XXII. They were granted immunity from taxation by Edward III of England, acting as duke of Aquitaine. Grenoble received a charter from Benedict XII in 1339. There were also short-lived institutions, as at Perpignan, Orange, and Valence, which failed to achieve critical mass or attract foreign students in adequate numbers.

Like the Inquisition, many Iberian universities, such as Lisbon-Coimbra (1309) were established by civil rather than by ecclesiastical authority. As in France, some failed, but Valladolid, which received a charter from Clement VI in 1346, a celebrated institution by the end of the fourteenth century, became a *studium generale* and a *universitas theologiae* under Martin V in 1418. It served with Salamanca as model and springboard for the new foundation by Cisneros at Alcalá in its renaissance form very early in the sixteenth century.

On imperial territory east of the Rhine, the earliest university was Prague, founded by the emperor Charles IV, at whose request Clement VI authorized the

institution of a *studium generale* in 1347. The constitutions are largely borrowed from Naples and Salerno. The Jagiellonian University in Kracow was founded in 1364 by the king, Casimir the Great, with the formal permission of Urban V who refused, however, to allow the establishment of a theological faculty for the Vienna *studium* founded by Rudolph IV in 1364. Kracow in Poland, with Buda (1389) and Pecs (Fünfkirchen, 1367) in Hungary, remained the most easterly of the successful European university foundations before 1500. Meanwhile Heidelberg had received its charter in 1385 from Urban VI at the request of the elector of palatine, with degrees to be conferred by the provost of the cathedral at Worms.

Like Vienna, Prague, and Heidelberg, the initiative for the foundation of Cologne was ecclesiastical rather than imperial. The Dominicans had had a *studium* there since the thirteenth century and were the prime movers in seeking, through the city council, the 1388 charter from Urban VI. The sympathies of Cologne remained papal until as late as the sixteenth century. The Erfurt charter was obtained at the instigation of the Franciscans, at first from the antipope Clement VII in 1379, and then from Urban VI in 1389. The university's openness to new ideas, its school of jurisprudence, and its position as the forum for discussions between nominalists and realists enabled it to become the largest university of German-speaking territory in the fifteenth century. The situation was, however, fundamentally changing as the new civic foundations generally required the annexation of prebends for their maintenance. It was the annexation of prebends rather than the desire to control theological teaching that made the issue of papal bulls necessary and increasingly brought the foundation of universities under papal supervision. Imperial approbation became diminishingly important and was solicited only in Greifwald, Freiburg, and Tübingen.

Further European university foundations and suppressions reflected political and religious alignments and powerful relationships, although they also mirrored the growing wealth of commercial communities, such as Louvain, and the need for better educational standards, largely to meet the growing demand for administrators. King's College chapel's heraldic ornamentation became an ostentatious display of Tudor power, stridently proclaiming the defeat of the college's founder, Henry VI, in 1461, and of a size disproportionate to its ostensible purpose, which was to provide a building suitable for the corporate worship of a relatively small foundation. It was built more as a cathedral than as a chapel, but there was already a diocesan cathedral at Ely, so a chapel it has remained.

When Poitiers was instituted by Charles VII in 1431 to counterbalance the pro-English stance of Paris, the pope Eugenius IV restricted its privileges to those already possessed by Toulouse. Charles then unilaterally augmented the privileges of Poitiers to include all those possessed by Toulouse, Paris,



Montpellier, Angers, and Orléans. He placed the new university under his own special protection. Caen was then founded as the pro-English antithesis of Poitiers. The bishop of Bayeux was made its chancellor, and Eugenius IV included in its charter of 1437 the requirement that those graduating should take a vow of fidelity to the see of Rome. The rejoinder from the French king was the celebrated pragmatic sanction of 1438.

Universities that established publishing presses gave themselves a powerful advantage in the late fifteenth and early sixteenth centuries, when the peak demand for text and tracts drew the principal scholars to the important printing centers. At the same time those universities that were committed to defending the old Latin Vulgate translation of the Bible (and therefore opposed the publication of new texts and translations, and indeed opposed the cultivation of the antique Latin, Greek, and Hebrew studies on which ■ new educational program was becoming based) found that the new “tri-lingual” studies simply bypassed them. Oxford and Cambridge absorbed the new educational outlook, in which the arts course now emphasized philosophy and rhetoric in place of logic and dialectic, with colleges at each founded to further it, while at Paris, Cologne, Louvain, and elsewhere, tri-lingual colleges were projected outside the established university system. The Collège de France today is the result of the establishment of royal lecturerships under François I in a Paris whose university was resolutely hostile to the new studies.

Foundations were made in many towns of considerable commercial or administrative importance (although not at Lyons, which had no university before 1808), and included in the second half of the fifteenth century the universities at Bordeaux, Valence, Nantes, Bourges, Basel, and Ingolstadt, all of which received papal charters at the instigation of secular princes or municipal authorities. Trier, Mainz, Uppsala, and Copenhagen followed before the end of the century, and in 1502 so did Wittenberg, the first university on German-speaking territory to be founded by imperial rather than papal decree. The charter, issued on July 6, 1502, by Maximilian I followed, however, the provisions and phraseology of earlier papal charters. The last German territory to receive its university was Brandenburg, in which Frankfurt-an-der-Oder was founded in 1506 by Pope Julius II. It was given an imperial charter seven months later.

The system as it developed in Europe was characterized by certain important features, such as the interchangeability of teaching posts, as masters, teaching in Latin, moved from one teaching position to another irrespective of nationality and geographical location, and by a very loose discipline among student bodies. After the mid-sixteenth century and the foundation of counter-reformatory Jesuit universities, the religious schism dominated the system until the revolution in France uprooted the French universities, putting higher education in France into administrative abeyance in 1793, pending its restructuring under Napoléon in

1808. Many German universities also disappeared between 1789 and 1816, although some have subsequently been refounded.

The early nineteenth century provides a convenient watershed for any overview of the emergence of what we can now regard as historic universities. The Spanish system was being redesigned from 1857 with a minister responsible for ten university districts, and the French and German systems were being wholly reorganized. In England new universities were founded at London and Durham, then at Manchester, Newcastle, Liverpool, Leeds, Birmingham, and Sheffield; new universities were also founded in Scotland and Wales. The system had spread within Europe to Ireland (where Trinity College dates its foundation to 1591), throughout the Low Countries and to the Scandinavian and Balkan countries, Switzerland, and Russia. In England, legislation promoted in 1877 much loosened the association of the universities with the established church. Colleges in what was then the British Empire became affiliated with British universities, notably Cambridge, before becoming independent universities in their own right. Almost everywhere the development of the university system was primarily promoted by the need to produce doctors, lawyers, and administrators, but decreasingly to produce religious leaders, whose training was increasingly relegated to seminaries for spiritual as well as theological formation. Only of secondary importance in the development of universities was the desire to produce an educated population with an enhanced quality of life.

When in 1852 the foundation of a specifically Catholic university for Ireland was being considered and John Henry Newman published *The Idea of a University*, he no doubt reflected the view of the English-speaking world by insisting that the function of a university was to teach the whole spectrum of disciplines. It was, it must be remembered, the age of the great encyclopedias, catalogs, and dictionaries, of the multivolumed series such as Migne's Latin and Greek patrologies, of the *Encyclopaedia Britannica* and the *Oxford English Dictionary*, in which it was considered possible to encapsulate in printed form vast and exhaustive collections of whole spectrums of what was knowable.

Newman was highly sensitive to the reproach that the university, as he conceived it, would simply create a "gentleman . . . with brilliant general views about all things whatever," but he was adamant in his exclusion of research at the university; for him research was the proper field of activity of non-teaching academies. He no doubt takes his case to its extreme, but it was once commonly pressed and has seldom been so forcefully stated. What was to be expected of a university education according to Newman was "the culture of the intellect, . . . the force, the steadiness, the comprehensiveness and the versatility of the intellect, the command over our own powers, the instinctive just estimate of things as they pass before us." Whatever the culture of the intellect may do for an individual, "In all it will be a faculty of entering with comparative ease into any subject of thought, and of taking up with aptitude any science or profession."

The first step is always to inculcate “the idea of science, method, order, principle, and system; of rule and exception, the richness and harmony.”

This was the philosophy of higher education that radiated from Britain to the rest of the Anglo-Saxon world in the mid-nineteenth century, that largely informed the attitudes adopted at that date by Oxford and Cambridge, and that cannot be said subsequently to have been completely abandoned. It was at the opposite pole from the philosophy governing the provision of instruction for lawyers, physicians, clerics, and administrators that had informed the teaching of the medieval schools beyond elementary education. It led to a real if temporary separation of university education not only from research activities but also from provision for professional and vocational training, and even more from the formation required by future practitioners in the performing arts. It is probably the case that scientific research would have continued, even had it not been at all depended on the teaching activities of the universities. It would no doubt have been fueled by the pressure for improved health care and political needs to achieve and maintain superiority in armaments, if not from the simple expectancy of the economic reward. It seems certain that research work in the liberal arts and the more theoretical aspects of the social sciences would have languished if it had been cut off from the motivation provided by the teaching institutions.

As in medieval Europe, in the United States of America, the modern universities (especially the state institutions, often modeled on Jefferson’s University of Virginia) had at first little interest in research. They grew largely out of the provision of training in practical skills, as, for instance, in the agricultural colleges, where the cultivation of technical understanding preceded greater emphasis on liberal studies and scientific inquiry. Professional training, even outside the high-demand areas of law, medicine, and, until very recently, religious leadership, was the motivation behind the early western-style universities both in eastern Europe and in the far east.

Except in a purely administrative sense, the British universities were never close models even for the great private colleges of the east coast of the United States, if only because the earlier U.S. universities were set up in a generally poorer society not so stratified by class origins and generally with a more strongly moral or religious educational component than was evident in nineteenth-century Britain. Harvard, Yale, Princeton, Rutgers, Columbia, and Brown all had religious origins. Only the second wave of foundations—Michigan, Wisconsin, Minnesota, and California—strove for freedom from religious control, while North and South Carolina, Georgia, and Maryland followed Virginia’s lead in affording extensive state support to higher education. A third wave is constituted by the universities such as Cornell, Johns Hopkins, and Chicago, which grew out of private benefactions with little or no state support or religious affiliation.



The foundations of U.S. universities and colleges can be divided into four periods, of which only the first three are of importance in the context of the present volume. The first period lasted from 1636, the year of Harvard's foundation, to 1776, when Hampden-Sydney was the 15th college to be established. Originally intended primarily for the education of the clergy, these colleges were not at first universities in the continental European sense, although the curriculum invariably adapted from that of the English religious colleges, remained broad. Alongside divinity and the scriptural languages, it included classical literature and history, logic, rhetoric, and mathematics. The admissions of these early colleges were, however, never confined exclusively to those training for the ministry or even to those with the relevant denominational affiliation.

The second period, from 1776 to 1862, saw the foundation of scores of further institutions of higher education, of which 29 had already been established by 1820, with curriculums now more attuned to the production of qualified professionals with practical skills. The older educational institutions were reluctant to adapt, and many of the new ones became separately organized professional schools, including a variety of seminaries, Rensselaer Polytechnic Institute (which offered agriculture), and the U.S. Military Academy, the first institution to offer a program in engineering. Schools of applied science multiplied in the 1850s. State schools of agriculture were founded in Maryland, Pennsylvania, and Michigan, and the established colleges then instituted scientific programs: Harvard in 1847 and Yale in 1851. The Massachusetts Institute of Technology was founded in 1861.

At the time, the Morrill Act of 1862 (commonly called the land-grant act) had the effect of promoting the integration of professional engineering and agricultural training into what had become the U.S. university system. The system also absorbed teacher training, although teacher training colleges continued to develop separately to keep pace with the growing demand for secondary education. The first three state institutions of higher education had been chartered by 1800, and by 1819 Virginia had introduced the system of elective courses. During this period, too, the first municipal colleges appeared. At Louisville the college was a creation of the city council in 1837, becoming a university in 1846. The first women's college, Mount Holyoke, appeared during the second quarter of the nineteenth century, and in 1833 Oberlin was the first university to admit both men and women.

It was during the third period of foundation, from 1862 to 1900, that the land-grant act made mandatory the establishment of state colleges for instruction in agriculture and the mechanical arts, and that universities, granting postgraduate degrees (beginning in 1876 at Johns Hopkins), began to develop. The best of the liberal arts colleges became universities, from the independent as well as the state sectors, and nineteenth-century industrial magnates such as Vanderbilt and

Rockefeller began to found university institutions, such as those of Stanford and Chicago. Attempts to import the German tendency to separate research from teaching institutions nearly led to the hiving off of graduate schools, to be devoted primarily to the advancement rather than the transmission of learning. In fact the same institutions did keep undergraduate teaching and graduate research functions together, although nearly insulated from one another, a specifically American compromise between the German and British solutions.

The evolution of the Australian and New Zealand universities is analogous to that of the U.S. institutions. The general administrative pattern was British, and Sydney was incorporated by an act of the colonial legislature that received the royal assent in December 1851. The royal charter dates from 1858. By an act of 1884, denominational halls and colleges were to be affiliated to a strictly interdenominational central institution. Melbourne, Adelaide, and Hobart followed before the end of the century. The university of New Zealand was founded in 1870 with affiliated colleges as far apart as Auckland in the north and Dunedin in the south. In Canada, too, development was similar, although along more stringently denominational lines. McGill College had been instituted in Montreal by royal charter in 1821 as a Protestant nondenominational foundation. The University of Toronto, later split into University College, the principal teaching institution, and Trinity College, the church of England college erected to replace the suppressed theology faculty, was founded in 1827, and the Catholic, French-speaking university of Laval at Quebec was founded in 1852.

The University of Athens (founded 1837) was modeled on the north German system. The universities of Iasi (1860) and Bucharest (1864), both in present Romania, were founded as state institutions, with representation in the senate and training grounds for a professional elite with gratuitous instruction and examination for students. Further east, the Japanese universities of Tokyo (1868) and Kyoto (1897), both amalgamations of previously existing institutions, were similarly established for the provision of professional training in medicine, science, law, and engineering. Sofia (1888) in Bulgaria extended its faculties to include history and philology but chiefly in order to produce competent teachers at the secondary level.

Throughout the history of the development of universities as we know them, there have been three major variables, related to one another in different ways at different times and places. The relative importance in universities attached to professional training and to generalist intellectual formation has clearly varied, as has the relative emphasis given within university institutions to the instruction in available knowledge, the advancement of the boundaries of knowledge by research, the perception of the continuity between research and teaching, and their interdependence within the same institution. Perhaps historically of the greatest importance of all, however, has been the varying relationship between secular education and religious formation.

The development of the theological *studia generalia* in later medieval Europe was no doubt gestated by the need for competent administrative officials alongside priests and physicians to conduct the internal government and external relationships of the new powerful political units that coalesced in the late fifteenth century. It is not surprising that they were at first drawn almost exclusively from the ranks of the clergy, the only source for the recruitment of first literate and then elegantly educated administrators. It is indeed also not surprising that they continued to be recompensed from the same sources of revenue as previously. It is in any case clear that society's need for competent professionals, whether in medicine, engineering, the technologies, administration, agriculture, or any other field, did in fact provide the impetus for the development of what we now regard as university institutions.

With regard to the relationship between teaching and research, the desirable balance is still the subject of considerable debate, with Newman's view that the activities demand separate institutions no longer finding much favor. The real question now centers much more on the nature of the relationship between the teaching and research functions of the same scholars and institutions.

The most important point to be made by any such brief survey as this of the history of the university system must surely be how sensitively it has always responded and still responds to the perceived needs of the society it serves. As the essays in this volume demonstrate, throughout history the world's universities both reflect and influence the societies in which they are created.

*A.H.T. LEVI*



**INTERNATIONAL DICTIONARY OF**  
**UNIVERSITY HISTORIES**

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# AALBORG UNIVERSITY

## (Aalborg, Denmark)

<b>Location:</b>	South Tranders in Aalborg, Denmark, the northern part of Jutland, a 250 km drive from Copenhagen.
<b>Description:</b>	A state university enrolling approximately 9,500 students.
<b>Information:</b>	Informationskontoret Aalborg University Frederik Bajersvej 5 P.O. Box 159 DK-9100 Aalborg Denmark (98) 158522 Fax (98) 159067

Aalborg University is the youngest of the five Danish universities, opening on September 1, 1974. Originally called Aalborg University Center (AUC), it was based on the fundamental idea of integrating a large number of existing disciplines into one institution. In this and other respects, the basic principles of AUC broke with the teaching and research traditions maintained at the "old" universities: Copenhagen (founded 1479), Aarhus (founded 1928), and, to a lesser degree, Odense (founded 1964). Aalborg University Center introduced project-organized studies for student groups and research teams, with interdisciplinary studies as part of the pedagogy. Less course-time was structured as lectures, and a lot of the teaching took place in self-organized student groups, working on a problem defined by the students themselves.

In the beginning of the 1960s, Denmark experienced an educational boom; at the end of the 1960s it became obvious that the universities of Copenhagen, Aarhus, and Odense could no longer keep up with the demand for higher education. This was part of the argument for Aalborg University Center, but the first initiatives towards the foundation of a university in Northern Jutland were taken before this, in the late fifties and early sixties in Aalborg.

In 1959 C. Willum Hansen, headmaster at a local high school, stressed the necessity for a local university. The local paper polled a number of citizens to test the idea, and the opinions were mixed. The idea of a university in Northern Jutland got support primarily from local consultants, who wished for medical education in Aalborg. Others, opposing the idea, stressed the necessity for solving other educational problems. During the first half of the sixties, the idea of a local university gained more sup-

port from the Northern Jutlandic businesses and industries, the local labor movement, and the city council.

In 1961, the Northern Jutlandic Commission for Institutions of Higher Education started more systematic work to create a basis for the university. During the next five years, the commission worked out detailed plans for a university. At a public meeting in 1964 it was concluded "that the size of the population in Northern Jutland, the cultural and educational environment of the province, the size of Aalborg, and the growth in number of college graduates spoke significantly for the location of the fourth Danish university—or part of it—in Aalborg." In 1965, the commission developed more specific plans for a university, including a larger degree of interdisciplinary education, and a certain softening of traditional university structures and teaching principles. The commission also suggested that, along with the implementation of a department of medicine and a department of social science, there ought to be a department of science, building on a close collaboration with the new field of engineering. In order to promote the development of an institute for fishing and biology the commission also argued for the implementation of a program for geographical studies.

During the first half of the sixties similar plans for the expansion of Danish universities developed at the national political level in the Ministry of Education. In May 1964, the Danish parliament passed a bill for expanding Odense University; during the final debate the idea of three additional Danish universities grew. In continuation of this idea, the Planning Commission for the Higher Educations was appointed in December 1964 to start preliminary work on the bill for more centers of higher education. This bill was promoted by the Social-democratic Minister of Education K.B. Andersen in 1966 and 1967, but was not accepted by parliament. In 1968, the Liberal Minister of Education Helge Larsen promoted a bill for the expansion of existing universities in Copenhagen, Aarhus and Odense.

The Danish Student Council (DSF) intervened in favor of a new university in Aalborg. They argued that "in Aalborg the preparations for a center of education have gone far, and the construction therefore can progress more peacefully than at the other locations." The push for a local university was intensified by the creation of The Northern Jutlandic University Association in 1969.

In November 1969, Minister of Education Larsen passed a new bill proposing a new university in Roskilde, but also promoted the university in Aalborg. A demonstration in Copenhagen in December 1969 drew more



than 1,000 people from Northern Jutland, and former Minister of Education, K.B. Andersen, emphasized this massive popular support. May 28, 1970, the Danish parliament passed a bill to start a new university in Aalborg in 1974–75.

Collaboration with DSF continued, and the city council in Aalborg offered 10,000 square meters of existing building space, at no charge to the Ministry of Education. Furthermore the council suggested a more permanent location on unbuilt land in Sdr. Tranders. In 1974 AUC started in the offered buildings. Later, surrounding buildings were integrated into AUC's campus. In 1975 the first part of the new campus in South Tranders was completed, and has been expanded ever since, but has not been able to match the requirements of the growing number of students.

The Planning Commission started its work in 1970 with four tasks: (1) to analyze the possibilities of coordination with existing educational institutions and put forward proposals to promote such a coordination; (2) to put forward proposals for new educational programs; (3) to consider and put forward proposals on the implementation of these programs and the order of establishment of the programs; (4) to put forward proposals, in cooperation with the Building Administration, for the physical setting of the center, covering both short-term as well as long-term needs. In June 1971, Jan Schrøder was appointed administrative leader of Aalborg University Center, and the first office was established in Gug, close to the location of AUC. Schrøder later became a crucial member of the provincial vice-chancellorship.

One of the first tasks was to establish contact with local educational institutions to analyze possibilities for collaboration. The first one, Aalborg Technical College, agreed to integration with the new university center. Later, several other educational institutions were integrated, including programs for social workers, and students from the local branch of The School of Economics and Business Administration.

In 1971 the Liberal government was replaced by a Socialdemocratic one with Knud Heinesen as Minister of Education. He resisted some of his fellow Socialdemocrats and turned down a proposal to quash the university at Aalborg in favor of Roskilde. He gave the Planning Commission a more specific task that committed the commission, among other things, to put forward proposals to integrate education for engineers, to develop basic study programs within the social sciences and the humanities, in order to relieve the pressure on the university in Aarhus, and to possibly integrate the educational programs for primary school teachers. The Planning Commission delivered a report in 1972, proposing four departments. The commission also suggested the concept of a common first part (called the basic-study program) succeeded by separated study programs. This proposal formed the basis of the educational system at AUC.

The first Vice Chancellor of AUC was appointed on December 5, 1972. Jörgen Weibull, a Swedish professor, was appointed head of the provisional vice-chancellorship. His main task was to prepare proposals for educational programs for primary school teachers as well as for studies within the social sciences, technical professions, science, and computer science. The provisional vice-chancellorship had six members, including the later Vice Chancellor Sven Caspersen and two representatives from the Danish Student Council. All were later attached to the university as administrators and professors.

One important field was missing from this list: medical education. The Ministry of Education mentioned that "the foundation of an entire medical education in Aalborg is not part of the ministerial plans." The idea of medical education at Aalborg was defeated, and later suggestions have not been considered with any substantial seriousness.

The provisional vice-chancellorship suggested the matriculation of 950 new students in 1974. Seven hundred thirty students would be transferred from existing institutions. The Ministry of Education reduced the figure of new enrollees to 750, which meant that the university center would start with 1,480 students. The number of new students was later cut back even further to 450 by the new Liberal Minister of Education, Tove Nielsen. The Liberal government was far more critical of the new university centers, and there was strong opposition to integrating programs for primary school teachers at AUC.

When it came to the founding principles at AUC, the provincial vice-chancellorship was divided into two opposing parties. The majority wanted a one-year basic-study program divided into six different entrance possibilities; the minority wanted a two-year basic-study program and divided into only three entrance possibilities. The two groups also had conflicting views on the organization of the studies, the organization of the institutes, and the admission requirements. The conflicts prompted discussion in the local media, and there was substantial local support for the point of view of the minority. When both proposals were presented to the Planning Commission a strong majority showed for the proposals put forward by the majority-held views of the provincial vice-chancellorship. Knud Heinesen supported the decision to go with the majority-held proposal. The students and the local unions protested, stressing the need for a university structured in agreement with public wishes. Subsequently, the unions demanded influence on the organization of AUC.

A new Liberal government was appointed in 1973, and March 15, 1974, Tove Nielsen introduced the bill allowing Aalborg University Center to open its doors in September 1974. Students in the new educational programs for social workers and engineers, students transferring from the School of Business Economics, were the first at AUC. The primary school teachers' program was stopped

by Nielsen, although the program was not definitively rejected until later. Eventually, the education of registered land surveyors was moved to AUC. The education of librarians at the local branch of The Royal School of Librarianship was not integrated into AUC, but it was located in the same buildings. In September 1974, 45 percent of the student body came from Northern Jutland. In 1995 a substantial number of new students still come from Northern Jutland.

Sven Caspersen became Vice Chancellor in 1975, and he played a crucial part in building AUC from its tender start in 1974 to the modern, international university it has become. In 20 years, the university introduced a number of new disciplines, adjusted to changing demands from the business world, and added new, interdisciplinary research. Aalborg University Center utilized the educational principles laid down by the provincial vice-chancellorship and the

Planning Commission to create a special university profile, which has helped recruit students and professors. Most important of these principles has been stressing and maintaining interdisciplinary teaching and research. Graduates from Aalborg University Center have obtained qualifications in some ways quite different from graduates of other universities in Denmark. Primarily, they have been trained to cooperate with colleagues, solve communication problems, and deal with unfamiliar and unknown situations by applying learned methodology.

In 1994 Aalborg University Center changed its name to Aalborg University (still abbreviated AUC to distinguish it from Aarhus University) to end confusion concerning the status of AUC.

—Jan Bitsch Steffensen

# AARHUS UNIVERSITY

## (Aarhus, Jutland, Denmark)

<b>Location:</b>	Aarhus, Jutland, Denmark, approximately 400 km west of Copenhagen. Set on rolling moraine, the 37-acre University Park is located on the north side of the city within sight of the copper roof and red brick walls of Domkirke, Aarhus's landmark thirteenth-century church—the largest in Scandinavia.
<b>Description:</b>	A state university enrolling approximately 18,000 students in undergraduate, graduate, and professional schools.
<b>Information:</b>	Studiekontoret (Registry) Ndr. Ringgade 1 DK-8000 Aarhus C Denmark (89) 42 10 25 Fax (86) 13 09 57
<b>Note:</b>	Rules of Admission for foreign students can be found on school's website at: <a href="http://www.aau.dk/uk/adm/registra/rules-1.htm">http://www.aau.dk/uk/adm/registra/rules-1.htm</a>
<b>Visiting:</b>	To arrange a tour, contact ■ specific department of the External Relations Office, University of Aarhus, c/o Science Park Aarhus, Gustav Wieds Vej 10C/ DK-8000 Aarhus C.

An outstanding example of Scandinavian architecture, the University of Aarhus is also well-known academically for industrial and scientific research and is a thriving center for the arts and culture of Denmark. The city of Aarhus is located on the eastern coast of the Jutland peninsula, the only part of Denmark attached to the continent of Europe. One of several well-developed industrial centers in Jutland, Aarhus is a bustling seaport. It was a Viking settlement a thousand years ago, and is now Denmark's second largest city with a population of 270,000. Since Jutland is separated from Copenhagen and the 406 islands which make up the rest of Denmark by the Great Belt, many business firms maintain offices in both cities and the business community of Aarhus has always played an important role in the development of the university.

The idea for a university in Jutland had first been discussed in the eighteenth century when the archdeacon of Viborg spoke in favor of building a university there as a supplement to the one in Copenhagen which had shortly before

burned down. Denmark was temporarily without a school of higher education and the archdeacon argued against remaining vulnerable to one sole institution's health.

The government in Copenhagen did not move on building a second university, though, until 1925, when a ministry-level committee finally looked into the feasibility of a university in Jutland and found in favor of it. The real initiative, however, came from a group of private citizens and business leaders who called themselves the "University Association." They had campaigned for Aarhus as the site for the new university as early as 1921, and eventually convinced the state to permit a three-year trial period beginning in 1928.

Seventy-eight students attended lectures that year in space rented from the Aarhus Technical School. The teaching staff consisted of a professor of philosophy and four associate professors of Danish, English, German, and French. Soon thereafter, generous financial support from the Aarhus business community allowed the University Association to purchase a former clinic and transform it into the first residence hall. A wealthy businessman endowed a trust that distributed monetary grants to 50 students annually. Such private interest convinced the state of the school's viability and it began to take a more active role in its development. In 1931, the Danish legislature passed a law that provided for the restructuring of university teaching at Aarhus into a true university.

With this official approval and impetus came the need for more buildings, especially one that could house the medical faculty (now known as the Faculty of Health Sciences) and its laboratories for physics and chemistry.

A design competition was held and one winner, architect C.F. Møller, began his lifelong attachment to the university. He died in November 1988, but his firm was still responsible for university construction, including the Science Park and the Steno Museum. Møller and his colleagues, Kay Fisker and Povl Stegmann, designed the first buildings to take advantage of the gap in the moraine landscape. Instead of filling it in, they placed the buildings on the slopes in view of a meandering stream, ensuring a distinguished landscape and architectural design. Landscape architect Carl Theodor Sørensen planted oak trees throughout the campus, making University Park one of the largest oak-clad parklands in Denmark.

The cornerstone of the first building was laid on August 30, 1932. Its classrooms were ready for occupancy in September of the following year when the faculty of arts was moved over from Aarhus Technical School. The formal opening took place under a large marquee where the chairman of the board of the university and the mayor of Aarhus





*Aarhus University*

hus welcomed the Danish royal family, the prime minister, the minister of education and 1,000 spectators. King Christian X then proclaimed, "With a wish that the scientific research that will take place here will do so in a sense of spirit and truth, I hereby declare the University of Aarhus open." Following this auspicious occasion, a number of residence halls were built and the area began to acquire the look of a park in the city.

Late in the thirties, construction began on the Main Hall. Also designed by the Møller firm, it is based on traditional Danish forms. So while the Main Hall is public and monumental, as are all the buildings on the campus, it is also reminiscent of classic Danish architecture. Its concrete frame construction is clad with the traditional yellow brick, laid in ornamental patterns, and the roof is tiled. The interior, meanwhile, is composed of exposed concrete ribs and a window opens up the entire end wall, its top forming the gable-end of the roof. Main Hall is considered one of the finest interiors of mid-twentieth century Danish architecture.

Although construction on the Main Hall continued throughout German occupation during World War II, Møller put off completion for fear that the Germans would

confiscate the building. His fears were well-founded when, on August 29, 1943, four professors were seized as hostages. In October, the Gestapo took over all five residence halls and as students hastily moved into private homes, the Germans surrounded University Park with machine gun nests and barbed wire to fend off Resistance forces.

Since the Gestapo's archives were now located on University property and the buildings were also used to interrogate captured Resistance fighters, the Danish Royal Air Force, with the encouragement of the Jutland Resistance movement, decided to bomb the university. On the morning of October 31, 1944, 33 aircraft took off on a course towards Aarhus. Flying very low over the city, they attacked in several waves of precision bombing which killed between 50 and 100 people. The majority of the casualties were Germans and their collaborators, but ten Danish construction workers were also hit.

As soon as possible after the war, repairs were made and the Main Hall was completed and opened in 1946. It housed the faculties of the arts, economics, and law (now the social sciences), and theology, while the medical faculty carried on in the 1933 building, holding biochemistry and physiology labs elsewhere. A fourth faculty, business, which had

long been the dream of the managing director of the Aarhus Oliefabrik and the University Association, had been established in 1936, followed by theology in 1942.

In those early years, the University Association depended solely on private sources to fund the university. They solicited from individuals, from local councils, from groups within industrial firms and from the firms themselves. In many cases the donations were in kind, for instance, a load of yellow bricks from a brick factory or lumber from a lumber mill. In the post-war period the generous donations continued. The Cheminova Company, for instance, transferred to the University the entire share capital of the company in 1944. Since then, the dividends have been assigned by the Aarhus University Research Foundation for use in research at the university. In 1954, Ellen Dahl (née Dinesen) presented the Sandbjerg estate in the south of Jutland to the university for scientific conferences, courses, and other similar events. Dahl was the widow of Attorney Knud Dahl and sister of Karen Blixen, the author known as Isak Dinesen. The Dahls had previously donated land for the University's MoIs Laboratory. In 1970, the university ceased to be a private foundation and came under the supervision of the Ministry of Education, as do all other Danish universities.

By the mid-fifties, the number of students had increased 25 times and the number of professors and associate professors had increased about ten times. In addition, there was an even larger group of instructors, junior lecturers, and teaching consultants. This latter group was the result of collaboration between the Faculty of Medicine and the hospitals of Aarhus. The university celebrated these and other achievements during its 25th anniversary in 1953 with a festival of concerts and lectures and a fair. The anniversary was an opportune time to launch a new fundraising campaign for the construction of a student union building to be completed in 1964.

In the tradition of European universities, Aarhus took its place among the great European schools in 1953–54 with the full establishment of its fifth faculty, science. Chemistry and physics, which had previously been taught in conjunction with medicine, were now established as separate disciplines and the school was able to focus its energies to a greater degree on cutting-edge research.

The rebellious events of the 1960s did not bypass Aarhus. In the early sixties, those among the teaching staff who did not have professor status—the majority in terms of numbers—began to express their discontent. In the late sixties, they were joined by the students in a nationwide movement of rebellion. The government reacted with a new statute in 1970 which unseated older professors from their positions of power and gave the younger staff and the students greater influence on university administration.

As the student body grew to about 15,000 in the sixties and seventies, so did the breadth of academic instruction and extracurricular activities. This demanded more space. As vacated military and hospital buildings became available, they were acquired by the university. Five professors' houses were torn down and the arts faculty found itself housed partially in a former factory complex in the Trojberg neighborhood, while psychology was taught in the Risskov district. Many other activities were located throughout the city. Growth finally stabilized in the eighties and it was during this decade that the Møller firm completed Forskerparken, the Science Park of Aarhus. A private foundation, Forskerparken provides research facilities for the university and other bodies of higher education who collaborate with the business community in the development of new products.

The most recent addition to University Park is the Danish Museum for the History of Science and Medicine. Also known as the Steno Museum, it is another Møller building located in the southernmost part of the University Park. It houses a planetarium, a medical history museum and a physical sciences collection.

Other museums attached to the university are the Natural History, the Collection of Ancient Art, and the Museum of Prehistory which is located in a former manor house at Moesgaard, south of Aarhus. The famous "bog people"—mummified bodies found in nearby bogs—are displayed at the Moesgaard. Behind the museum is the Prehistoric Trail that leads hikers through mock woodland and bog settings down to the real sand beach. Students of prehistoric archaeology, medieval archaeology, ethnography, and social anthropology find the museum to be a useful resource.

With such a wealth of historical, cultural, and scientific opportunities, the University of Aarhus has become the cultural and scientific center of Jutland, handsomely, if not exactly, fulfilling the hopes of the archdeacon of Viborg.

**Further Reading:** The bulk of the information about the University of Aarhus in English is to be found through the External Relations office of the University (c/o Science Park Aarhus, Gustav Wieds Vej 10C, DK-8000 Aarhus C). Commentary about its architecture and descriptions of Jutland can be found in any of the standard travel guides. *The Scandinavians* by Donald S. Connery (New York: Simon and Schuster, and London: Eyre and Spottiswoode, 1966) offers general commentary on education in Denmark as well as descriptions of culture and daily life.

—Cynthia Ogorek



# AL-AZHAR UNIVERSITY

## (Cairo, Egypt)

**Location:** In the old section of central Cairo; university branches located worldwide.

**Description:** One of the most influential universities in the Muslim world. A government-run university enrolling approximately 90,000 students in undergraduate, graduate, and professional schools.

**Information:** Al-Azhar University  
Cairo  
Egypt  
904051

Al-Azhar University is the oldest and most prestigious university in the Muslim world. Situated in the heart of Cairo, its history is rooted in the city's past. Despite its 1,000 existence, Al-Azhar's designation as a university is quite recent, and there was resistance among faculty and students in the early twentieth century to the change in status from a mosque college to what seemed a more secular identity. The appellation "university," in fact, was not officially adopted until 1961.

For 900 years, Al-Azhar was a mosque school geared primarily, though not exclusively, to the study of Islam and the *sharia*, or Islamic law. The highest authority on Islamic law in Egypt (as in other Muslim countries), called the *ulama*, was filled generation after generation by jurists and legal scholars who were graduates or professors from Al-Azhar. This still holds true, despite the fact that, as a university, Al-Azhar has undergone radical changes, including opening its doors to women. Though state run, Al-Azhar is the most distinctively religious institution of higher learning in Egypt, grappling with modernization and secularization on the one hand, and with the phenomenon of Islamic fundamentalism on the other.

The history of this unusual institution began in the tenth century, when most of the population of Upper and Lower Egypt had converted to Sunni Islam and adopted Arabic as their spoken and written language. Shi'ite Islam, however, was winning converts in the Muslim world, becoming the state religion in Persia, and almost overtaking Sunnism in Mesopotamia. The Shi'ite Fatimid dynasty, which came to power first in neighboring Tunisia and then conquered Egypt in 969, was anxious to declare its independence from the caliphate in Baghdad and to establish Shi'ism as the state religion.

The Fatimid general Jawhar, who led the invasion of Egypt, set about establishing a fort outside the city limits of "Al-Qahirah," or Cairo. Surrounding this enclosure were a thick wall and moat. This area would serve as the new capital of the Fatimid dynasty, complete with an elaborate palace and an impressive new mosque, called Al-Azhar, or the "Most Shining," perhaps because the mosque was brilliantly illuminated on feast days.

When completed in 972, the mosque served as the official headquarters for the teaching of Shi'ism. Both the general and the Fatimid caliph used Al-Azhar to make public pronouncements, usually during the Friday prayers, and court sessions were held here during the week. Soon the city markets encroached on the walls of the mosque, and the homeless often sought refuge within the mosque's courtyard.

The original mosque building was rectangular, 280 feet long and 227 feet wide, with a courtyard in the center. Al-Azhar did not develop a reputation as a center of Muslim learning until several decades after its founding, when two great Islamic jurists, ibn-Killis (a Jew converted to Islam) and ibn-Numan were invited to Al-Azhar in the late 900s. Many young men flocked to Al-Azhar to learn from these renowned Islamic scholars. The earliest recorded student dormitory at Al-Azhar was constructed in 988; in addition, upon the request of ibn-Killis, the students received government stipends. The professors themselves, called *shaykhs*, also received a stipend from the government. There were neither formal courses of study nor classrooms nor degrees, as at medieval European universities. There were no entrance requirements, although it was understood that students coming to Al-Azhar would be literate and have memorized the Koran (which most Muslim boys did at an early age). "Graduates" of Al-Azhar (some professors provided written certificates of accomplishment) were ready to become prayer leaders at mosques, local (Koranic) school teachers, lawyers, and civil servants.

In the Fatimid theocracy, the Shi'ite beliefs in the *imamate*, or the caliph's divine right to rule and his infallibility in doctrinal matters, were central to the teachings of the *shaykhs* of Al-Azhar. Consequently, the mosque never lacked patronage in the form of gifts, and it was well maintained and often embellished. Al-Azhar obtained most of its income in the Middle Ages from the profits of nearby buildings and shops, which were earmarked as endowments for the mosque. Although Al-Azhar had no library, in 1005 the Fatimid caliph founded a research library there with thousands of valuable manuscripts that scholars in Cairo could use. Paper, pens, and ink were provided to them free of charge.



By the 1160s, the increasingly corrupt, arbitrary Fatimid dynasty had grown intensely unpopular in Egypt and soon collapsed. For the next several hundred years, Al-Azhar sank into relative obscurity, even in Egypt. This was especially the case during the reign of the famous Crusader-fighter Saladin, a fervent Sunni Muslim who distrusted Al-Azhar because of its reputation as a Shi'ite stronghold. This distrust characterized the dynasty he founded, which lasted until 1252. The government ceased subsidizing students or paying the *shaykhs*. Those students who could afford to stayed on and paid their professors privately; poor students, lacking financial support, were forced to leave. Saladin, however, made a lasting contribution to higher education in Egypt by introducing the college system, which Al-Azhar eventually adopted. Colleges were separate institutions within a mosque compound, containing classrooms, a library, and dormitories. In a theocracy such as Egypt, colleges were similar to monasteries—with required prayer five times a day, no women allowed, and an emphasis on asceticism.

Al-Azhar did not remain obscure. It was still the seat of the Egyptian *ulama*, and the most important center in the Muslim world for the study of Arabic—a fact of major significance because the Koran was written in Arabic, the prophet's language. When the long reign of the Mamluks superseded Saladin's dynasty in the 1260s, Al-Azhar was rescued from its obscurity. The Mamluks originally were Sunni Muslim non-Arab mercenaries from central Asia. Under their chaotic rule in Egypt, which lasted until the Ottoman Turks established their empire in the sixteenth century, they revitalized Al-Azhar, restored stipends for students and salaries for the *shaykhs*, and heavily endowed the mosque college. A college was built adjacent to the mosque and completed in 1340. Blind young boys were given stipends and encouraged to study the Koran (and possibly pursue higher studies), in the belief that they could earn their living afterward as chanters of the Koran on feast days, and even as teachers. Al-Azhar developed into the preeminent institution for the higher study of Islam, Islamic law, and Arabic, and young men throughout the Islamic world flocked to it. In the late 1400s, a generous caliph completely renovated the rectangular mosque and built new dormitories for the students.

By that time, Al-Azhar was already venerable. Senior scholars taught there, while many of the students were older men who had come there to engage in research. Al-Azhar had no counterpart in Europe. It possessed no central library (the library that had existed during the Fatimid period had been largely destroyed in the vicissitudes of wars and political instability that followed the collapse of Fatimid rule). If a student desired to learn a language such as Hebrew or Greek, or to study medicine, he had to go elsewhere in Cairo. In the absence of a printing press, texts were few. Students memorized their *shaykh's* lectures and notes, and texts, if there were any, were summaries of great works, rather than the works themselves.

Al-Azhar's fortune continued after the Ottoman Turks conquered the Mamluks and annexed Egypt to their empire in 1517. Murder and mayhem characterized the Turkish takeover of Cairo, yet the Turks pardoned the fugitives taking refuge in Al-Azhar. Once installed, the Turks treated the institution with great deference, apparently in awe of the venerable mosque college that attracted the greatest Koranic and Arabic scholars. It was also politic to favor an institution that was the pride of Egyptians, who resented the Turks. The scholars of Al-Azhar continued to uphold the *sharia*, and rigidly opposed any deviation from Islamic orthodoxy. When an Egyptian reformer, Wa'iz al-Rum, came to Al-Azhar in 1711 criticizing the corruptions in Islam and attacking certain customs and traditions, the *shaykhs* had him silenced and driven out of their institution.

On the eve of the French conquest of Egypt in 1799, Al-Azhar, still the most prestigious mosque college in Egypt, remained opposed to the study of science, foreign languages, and modern history. In 1748, the Turkish pasha in Cairo learned that neither astronomy nor mathematics was taught at Al-Azhar, and he presented the mosque college with a sundial in the hope of stimulating an interest in those subjects.

Al-Azhar remained loosely administered and organized. There was no college library, no examinations, no formal program of education leading to a degree, and no formal teaching qualifications. A rector, usually the leading jurist teaching there, supervised the mosque college and oversaw its finances. There were rules governing student behavior, and students belonged to *riwaqs*, loose fraternities within Al-Azhar organized according to nationality and the branch of Islamic law the student studied (there were four), if law was his specialty. A *shaykh* took responsibility for a particular *riwaq*. Meanwhile, Al-Azhar Mosque served the religious needs of the public, who freely wandered in and out, swarming there during feast days, while the homeless poor were never discouraged from seeking refuge within Al-Azhar's walls. In many respects, Al-Azhar little resembled an institution of higher learning.

Yet higher education was its purpose, and in the absence of academic degrees, it was the responsibility of the *shaykh*, or professor, to determine if a student was sufficiently prepared to leave Al-Azhar to enter a profession. The average length of study was six years with the academic year lasting seven months. To become a professor or a high civil servant required a longer stay. So while the institution lacked a bureaucratic infrastructure, academic training could be rigorous and prolonged. Al-Azhar also had a special commitment to blind students, who would be trained to qualify for membership in the guild of Koran readers (or reciters).

In July 1798, Napoléon Bonaparte and his forces conquered Egypt, wresting it from the control of the decrepit Ottoman Empire. They governed Egypt for



*Al-Azhar University*

nearly three years, although Napoléon returned to France a year later. The French takeover sent shock waves throughout Egyptian society, which had not been ruled by non-Muslims in over a thousand years. Everywhere anti-French rebellions took place. Napoléon attempted without success to woo the *shaykhs* at Al-Azhar, an institution hitherto unknown to him and his entourage, which included French scholars. It did not help that French soldiers were sent to occupy the mosque college; they closed it down for a year because of its anti-French sentiment. Nonetheless, French influence on Al-Azhar was nothing less than revolutionary. Not all the *shaykhs* were resistant. In fact, the rector of Al-Azhar from 1830 to 1834, long after the French had departed, took it upon himself to learn French and impart his understanding of European culture to his students at Al-Azhar. The French introduced the printing press to Egypt, an event which had far-reaching effects

on higher education in Al-Azhar; henceforth, students could buy original works instead of relying solely on memorization and condensed texts.

Even after the French departed and another despot sat on the pasha's throne, the old ways never returned. The new ruler, the local governor (nominally subject to the Ottoman porte) Muhammad 'Ali Pasha, favored scientific knowledge and the establishment of secular schools. For the first time in its history, math, modern science, and history found their way into Al-Azhar's curriculum. It remained one of few schools in Egypt that offered courses in theology and Arabic during Ottoman rule.

In 1872, Al-Azhar implemented a formal system of hiring professors. At the same time, Al-Azhar owed a great deal to the influence of an important man of letters, Al-Afghani, who taught there from 1871 to 1878. A liberal Muslim who taught European philosophy at Al-Azhar, he also sought to prove that the Koran did not



oppose modern science, and that reason and faith were not incompatible. Al-Afghani finally was pressured to leave because his views were still far ahead of the times at Al-Azhar; nonetheless, his influence was felt there for decades to come.

When the British occupied Egypt in 1882 (remaining until the end of World War I), in large part because of Great Britain's desire to control the newly constructed Suez Canal, Egyptians could no longer ignore the pressure to modernize and westernize. Conservative Al-Azhar changed more rapidly in the next few decades than it had in its entire thousand-year history. In the late 1890s, such major steps were taken as the planning of a central college library and the establishment of a modern clinic and infirmary to oversee the health of its 9,000 students. The rector ordered over 18,000 books and manuscripts owned by the mosque college to be collected as an initial step in establishing a central library. For the first time, hygiene became important and attempts were made to prevent the spread of disease by improving the overall sanitation of the college; traditionally, the indigent, either sick or healthy, slept in the open, and open-air cooking was commonplace. These changes were accompanied by a complete refurbishing and renovation of the mosque and college buildings.

In 1889, Egypt's Grand Mufti Muhammad 'Abduh, a *shaykh* at Al-Azhar who was more highly placed than the rector of the college, happened to be a disciple of the disgraced Al-Afghani. Until his death in 1905, 'Abduh was the leader in introducing reforms at Al-Azhar. This included instituting a regular system of examinations and required courses as a step in reducing the haphazard organization of the college.

Over the years, several important educational statutes followed to strengthen these reforms and introduce new ones. The educational statutes of 1885, 1908, 1911, and 1916 at last created a formal administrative infrastructure for the mosque college and an organizational framework for the student body, which was divided into major academic schools (such as "religious sciences," and "Arabic language"), that carried their own requirements and encompassed a formal course of study. By placing other mosque colleges in Egypt under its administration, the reform statute of 1885 raised Al-Azhar's status to a university. There was so much resistance to changing the name to "University of Al-Azhar," that the matter was dropped.

Independence from Great Britain came to Egypt after World War I, though with numerous conditions, primarily because of the strategic importance of the Suez Canal. World War I had placed Cairo at center stage, as the headquarters of the allied war effort against the Ottoman Empire. With the presence of allied troops throughout the war, Egypt was subjected to western influence as never before in its modern history. Though formally independent with its own monarchy, Egypt

could no more resist the tide of westernization than it could the annual flooding of the Nile.

Even as Al-Azhar was swept along in this tide of change, it remained a beacon of conservatism. In 1923, a *shaykh* was censured for being too critical of Al-Azhar's slowness to change: yet change was inevitable. In that particular year, a formal postgraduate degree program was inaugurated in certain disciplines, new courses were introduced, such as foreign languages, and in 1930, Al-Azhar even acquired its own printing press. In 1936, its formal designation as a university took place at last.

During World War II, Egypt once again found itself in the middle of the allied war effort against the forces of Hitler and Mussolini, the country flooded with foreign troops, spies, and movie stars. Western powers still controlled the Suez Canal, while Egypt was still too underdeveloped to assert itself as a sovereign state. The growing and powerful Muslim Brotherhood, established in 1928, reacted against westernization and opposed the Islamic conservatism embodied in the *ulama* and in such institutions as Al-Azhar, since they were impervious to Islamic fundamentalism. At the end of the war, fundamentalism appealed to a growing lower class, and lower-middle-class segment of Egyptian society, rather than to intellectuals and students. The reach of the hardcore fundamentalists within the Muslim Brotherhood (which had its own ideological divisions ranging from moderate to extreme fundamentalism) was inadvertently extended when the Brotherhood threw its support on the side of the forces of Gamal Abdel Nasser and his clique of army officers, who staged a successful coup in 1952. They abolished the monarchy and in 1956 seized control of the Suez Canal.

Al-Azhar University had displayed signs of favoring freedom of thought, symbolized in its foreign-exchange program inaugurated in 1945, but this promising indicator was short-lived. The Nasser government turned out to be pro-Soviet, its economy was quasi-socialistic, and Al-Azhar was put under government control in the same year that Nasser staged his coup. Al-Azhar's nearly 5,000 foreign students were all drawn from nonwestern countries. The Muslim Brotherhood, alarmed at the spread of Soviet-style atheism and secularization, went underground.

Despite the establishment of other universities in Egypt, Al-Azhar remained the largest (currently with more than 90,000 students) and most prestigious. In the 1958–59 academic year, Al-Azhar celebrated its millenium as an institution of higher learning. It boasted new administration buildings, an assembly hall, a large modern university library, and an efficient administration. The rector is president of the university, and the major administrative organ of the university is the supreme council. The old mosque, little changed since its renovation in the early twentieth century, serves as a university mosque.



The educational statute of 1961, Law 103, brought perhaps the most dramatic change to Al-Azhar: the admission of women. To be sure, the “College for Girls” (as it is called to this day) segregates women into their own classrooms and laboratories, and it is headed by a male dean. Nonetheless, deciding that women had a right to a higher education was revolutionary for an Islamic society.

Al-Azhar University has taken upon itself the task of steering ■ middle course between the tides of westernization on the one hand and strident fundamentalism on the other, and it has antagonized both sides. Fundamentalists criticize the *ulama* (i.e., the law faculty of Al-Azhar) for its rigid orthodoxy and for its 1990s denunciation of the invasion of Kuwait by Iraqi forces, while the Brotherhood sought to reduce the number of female university students overall. The government of Hosni Mubarak was dissatisfied, on the other hand, with the *ulama*’s retraction of its earlier support of family planning and its denunciation of

the United Nations’ population conference held in Cairo in 1994. What the outcome of its unpopular middle course will be remains to be seen; however, Al-Azhar has prevailed for over 1,000 years, despite both political and social vicissitudes.

**Further Reading:** Despite the fact that Al-Azhar University is regarded as the premiere university in the Arab world, surprisingly little has been written about it in any western language, although there are many sources in Arabic. The fullest account still is Bayard Dodge’s out-of-print *Al-Azhar: A Millennium of Muslim Learning* (Washington, D.C.: Middle East Institute, 1961), which ends, however, before coeducation was inaugurated in 1961.

—Sina Dubovoy

# ALBERT LUDWIGS UNIVERSITY

## (Freiburg, Germany)

<b>Location:</b>	In central Freiburg, a city of approximately 175,000, 80 miles from Stuttgart, in the state of Baden-Württemberg, Germany.
<b>Description:</b>	A state university enrolling about 23,000 students in undergraduate and graduate schools.
<b>Information:</b>	Albert-Ludwigs-Universität Freiburg International Office Werthmannsplatz Postfach 79085 Freiburg im Breisgau Germany (761) 203 437

The Albert Ludwigs University is located in the heart of the town of Freiburg (30 kilometers from the French border and 70 kilometers from Basel, Switzerland) and shares with it more than 535 years of history. With approximately 12,000 employees—out of which 7,000 work in the medical branch—it has become the largest employer in Southern Baden. But in the late fifteenth century, the university started on a much smaller scale and nearly faced extinction in the early nineteenth century. Today, 64 subjects are offered in 14 faculties leading to various degrees. A 15th faculty for applied sciences, with the departments of computer science and microsystem technology, is also being developed.

The Albert Ludwigs University is one of Germany's oldest universities. Archduke Albert VI of Upper Austria founded the university in 1457, but the driving force in setting up the school was his wife Mechthild, who had grown up under educated humanists in the Palatinate. Three years later, academic teaching began in the faculties of theology, law, medicine, and the arts. Albert was very much concerned about educating legal recruits for the state administration as well as theological recruits for the Catholic Church. Therefore, the University of Freiburg was designed to become a bastion of Catholicism.

In the first term 234 students were enrolled. At that time, the average age of the students was between 13 and 16, although the university register books also list students who were ten, nine, and even five years old. Students either lived in private homes with their professors or in residential homes, the so-called Bursen. Because of the difficult social situation of many stu-

dents, some respectable citizens donated study houses in which teachers and students lived together. Teaching also took place in these houses since the university did not own lecture halls until the middle of the sixteenth century.

One of the most important houses was the Collegium Sapientiae (House of Wisdom), donated by the Augsburg suffragan bishop, Johannes Kehrler, in 1496. Kehrler not only provided the financial foundation but also determined the social life in the house by formulating 88 rules. Students who lived there were selected by a commission of 12 and received a grant which was to be paid back after they had finished their studies. The daily routine was laid out in the form of monastic rules that determined, for example, when to get up during winter and summer times. Conversation was only permitted in Latin and students were forbidden to gamble and sing indecent songs. Violations were punished by exclusion from the house or by the withdrawal of wine at the meals. For a long time professors received their wages not in money but in wine.

The educational background of students in the later middle ages was very poor. Although a precondition to study was the knowledge of Latin, the language of science, only a few had acquired the necessary language skills in one of the municipal or conventual Latin schools. During a compulsory basic study in the artistic faculty, one could gain the knowledge needed for advancing to the three higher faculties of theology, law, and medicine. In lectures professors would only read aloud from a textbook that had been selected by the faculty. Rhetorical skills of students were developed in disputations that were part of the curriculum.

The term lasted from mid-November to August. Yet in the eighteenth century only 90 out of the 300 days of the academic year were good for study because of the number of days set aside for recreation. Thursdays were off as a matter of principle, and Tuesdays were half-days. In addition, the university took part in some 15 religious processions in Freiburg and the surrounding areas.

In the sixteenth century, some of the most important scholars of the time taught in Freiburg. Among them was Gregor Reisch, who wrote an encyclopedia of 12 volumes that became one of the most important manuals of the time. Martin Waldseemüller, one of his students, created together with Mathias Ringmann the famous world map of 1507. In the accompanying introduction (*Cosmographiae Introductio*) Waldseemüller made a mistake of grave consequence. He supposed that Amerigo Ves-



*Albert Ludwigs University*

pucci, the Portuguese seaman who had discovered the mouth of the Amazon, was also the discoverer of the new continent. Hence, Waldseemuller called the continent "America." All later attempts to correct the mistake were unsuccessful. The name "America," an invention of two former students from the University of Freiburg, has remained to this day.

Erasmus of Rotterdam also stayed in Freiburg, but although he was asked to deliver lectures, he never did. Another famous scholar, Ulrich Zasius, was an important member of the law faculty. He wrote the new city law in 1520 and was the pathmaker for the reception of the Roman law and, hence, today's basics of law.

The beginning of the Reformation meant for the university the beginning of an unlucky time. Freiburg and its university became a center of Catholic orthodoxy. The theological faculty was asked to work out a report against

Luther and his supporters. At the same time, the university was engaged in a fierce struggle to win its autonomy from the provincial government. The sixteenth century also saw the spread of the plague. Freiburg was afflicted more than 15 times, during which times the university sought shelter in other towns, among them Konstanz. In order to take care of their sick, the university administration bought a house that they turned into a hospital. On the property, a botanical garden was established which still exists today at a different location as the fifth oldest garden in Germany.

In the seventeenth century, the University of Freiburg was the only Catholic university in southwestern Germany. It was surrounded by a ring of Protestant universities in Tübingen, Zurich, Basel, Strasbourg, and Heidelberg. The school's sense of separation was only increased with the entrance of the Jesuits in 1620. While they increased the number of university buildings, they



also restricted scholarly teaching. The university was closed to the ideas of the Enlightenment until the middle of the eighteenth century. Students still gained their knowledge by disputations and not by empirical observations or experimental research. Because no fundamental university reform took place, registration at the university dwindled, at times to as few as 50 students.

An opening for new branches of scholarship arose with the university reforms of Empress Maria Theresa. Through these reforms the state gained control of the university, which by then had lost much of its autonomy. The senate was replaced by a consortium of four members, and the faculties were headed by a director chosen by the state. Only the state government could appoint professors in the future. In all faculties, new subjects and chairs were introduced. From then on German was the language in which teaching was conducted. The professors were asked not to read out of a textbook but to introduce and interpret different research results in their lectures. Experimental teaching became part of the academic education at the University of Freiburg.

In 1805 Freiburg became a town in the small state of Baden that already had a Protestant university in Heidelberg. Karl von Rotteck, a famous political scientist at the university, successfully underlined in a memorandum the importance of the denominational difference of the two universities in the state. In 1818 Grand Duke Ludwig assured the survival of the University of Freiburg. As a sign of gratitude, the name of the university was changed to Albert Ludwigs University.

Between 1815 and the March Revolution of 1848, Freiburg's students and professors were involved in the political controversies of the time. At one point the Badian government even ordered the school closed. But the town of Freiburg supported its university and achieved a reopening.

The foundation of the German Empire caused an increase in student enrollment. From 1870 to 1885 the number of students increased from approximately 200 to 1,000. Upon reaching that number, all of Freiburg celebrated, as it did in 1898 and in 1904 when enrollment reached 1,500 and 2,000 students, respectively. The 3,000th student in 1911 was also a cause for celebration and was even offered free lunch for one term by the owner of a local restaurant. When the enrollment reached 4,000 students, during the period of the world economic crisis of 1929, the town stopped celebrating. Although there had been no public celebrations, the first five female students at the university began their studies of medicine in the winter term of 1899–1900.

National Socialism affected the university deeply. Thirty-eight Jewish professors (about 19 percent of the staff) were dismissed by 1935. One hundred thirty-five scholars from Freiburg likewise had their title of doctor withdrawn when the government revoked their German citizenship. "Study of Race" became a compulsory sub-

ject. The opposition to these changes at the university was weak and mostly Christian-oriented, but the majority of the university teachers was passive.

During an air raid in World War II, 3,000 people died and 80 percent of the buildings in the old part of town were destroyed, along with the university church and hospital. Also destroyed were 80 percent of all university buildings. The rebuilding of the university began in 1949. Due to the acquisition of land, which came in part from a generous land exchange with the town, the university complexes were eventually redeveloped.

The humanities and the university library are located in the center of town, the natural sciences are assembled in the institute quarter in the north, and the large hospital is in the west of the Old Town. The university also has gained property for future developments.

Today, 15 faculties are classified in the areas of theology, law, economics, medicine, the arts, mathematics, physics, biology, chemistry and pharmacy, geology, and forestry. Traditionally, the humanities have played an important role at the university. Many outstanding performances in philosophy, in the philology of various European languages, and in historical research are connected with the name of the university. In the economics faculty the main emphasis of teaching is on political economy; among its prominent members are Walter Eucken, founder of the ordoliberal "Freiburg School" and Friedrich August von Hayek, who shared the Nobel Prize in economics in 1974. In the mathematics faculty the whole spectrum of mathematical sciences is covered. The focus in physics is on nuclear, high-energy, and particle physics. Freiburg is a leading center of interdisciplinary polymer research. Hermann Staudinger, who was awarded the Nobel Prize in chemistry in 1953, did research that formed the basis for the development of plastics. In biology, the research of such world-famous biologists as August Weismann and Hans Spemann led to modern genetic studies. Research in geology puts emphasis on the understanding and evaluation of natural resources, their exploitation by humans, and the preservation of raw materials and the environment. In forestry the research is concentrated on the causes and effects of forest diseases. The faculty of medicine enjoys a high international reputation with its large body of experimental and clinical research.

The university has also opened two centers: the France Center, which offers research as well as an extension study course to acquire competence in matters relating to France; and the Freiburg Material Research Center, which conducts application-related basis research.

The university library, built in 1978, holds more than 2 million books. The *studium generale* offers lecture series with scientists and artists and is intended for students and citizens alike. More than 1,800 students come from abroad to study in Freiburg. In recent years students from

the south of Europe have outnumbered those from America. Since 1911 Freiburg has been offering international summer courses in July and August. The magnificent landscape around Freiburg certainly supports its popularity within Germany and abroad.

Looking ahead to the future, the university, as a member of the European Confederation of the Universities on

the Upper Rhine (EUCOR), has stimulated European integration together with the universities of Basel, Strasbourg, Mulhouse, and Karlsruhe.

—Wolfgang Holtkamp

# ALIGARH MUSLIM UNIVERSITY

## (Aligarh, Uttar Pradesh, India)

<b>Location:</b>	Aligarh Muslim University lies just outside the town of Aligarh or Koil in the northern state of Uttar Pradesh in India. The city is an agricultural and manufacturing center in the region. Aligarh is known for its lock-making industry and sells most of its products domestically.
<b>Description:</b>	With 12,000 residential students, about 9,000 commuter students, 73 departments, and an annual budget of 10 million rupees, Aligarh Muslim University is the largest residential university in India. AMU is one of the select 12 central universities which gets funds directly from the Indian federal government.
<b>Information:</b>	Aligarh Muslim University Aligarh Uttar Pradesh 202002 India (571) 23994, (517) 23173
<b>Visiting:</b>	Write to the Office of Registrar at the address mentioned above for further information.

Located in the northern Indian town of Aligarh, Aligarh Muslim University (AMU) represents both an institution and a style of politics. Aligarh Muslim University's size and location make it a mini-township unto itself, enclosing both students' residence halls and faculty residences. Among its many important facilities and institutes is an engineering college; the Maulana Azad Library, with over a million books and rare manuscripts; and a college of traditional Unani medicine. Yet the importance of AMU lies above and beyond these statistics of scholarly activities. The most significant image of AMU is connected to the activities of its students and administrators between 1875 and 1947, when South Asia moved from colonial rule to independence and partition. The university has had a decisive impact not only on the social education of Indian middle class elites, but also on the political doctrines that shaped the destinies of present-day India and Pakistan.

Aligarh Muslim University's history goes back to 1875 when the reformist leader, Sir Syed Admed Khen (1817–98), laid the foundation of the Mohammedan Anglo–Oriental College (MAO) that in 1920 became Aligarh Muslim University. In the late nineteenth century, Sir Syed wanted to improve the social conditions of the Indian Muslim community through education, which he felt was essential to

pulling the community out of isolation. This sense of collective marginalization was a consequence of the abortive but bloody Indian uprising of 1857. The shock of the uprising and the accompanying popular violence had a profound impact on British policy in India. The prevalent feeling in administrative circles was that the Indian Muslims were responsible for the unrest. Direct encouragement of Muslim participation in the military and government ceased thereafter, for about two decades. When Sir Syed started the Mohammedan Anglo–Oriental College in 1877, he firmly believed that the institution would play a stellar role in the rejuvenation of Indian Muslim fortunes. According to him, the aims of the college were “to dispel those misty traditions of the past which have hindered our progress” and to “reconcile oriental learning with western literature and science.” He felt that Indian Muslims were marginalized because they lagged behind the times and neglected the study of modern science. A stay in England in 1869 crystallized his beliefs along the same lines. Therefore, the college curriculum blended the wisdom of the East and the West, to guarantee the interests of the Muslim community in particular and India in general.

The MAO College quickly became the exemplar of liberal education in northern India. Funded through a mix of government and private funds, it was a blend of the average English public school, and Oxford and Cambridge Universities. At the same time it had a distinctively Islamic flavor with regular breaks for prayer where attendance was mandatory. The ruling families of the princely states of Hyderabad and Bhopal were major contributors to the college. The college also received the support and encouragement of high profile members of the administration, such as the Viceroy Lord Lytton and Sir John Strachey. This was a remarkable achievement at a time when a conservative Muslim opinion was harshly critical of all attempts to break away from the traditional educational pattern, centered around theology. Sir Syed faced strong opposition to his plans for Muslim education, and, indicative of the power of his personality, he succeeded in the teeth of opposition from clerics and religious leaders, many of whom declared him an apostate.

Aligarh Muslim University has a mixed style of architecture; buildings range in style and age from late-nineteenth-century imperial to contemporary. Named after Sir Syed's supporter and then Lieutenant-Governor of the United Provinces Sir Strachey, Strachey Hall was the center of the MAO College's daily activities in the nineteenth century. Architecturally, it is a spacious facility with a gable roof, built with the red brick and red sandstone that was used liberally in campus construction. It stood in the



center of a quadrangle that housed the most important buildings of the college. The plan both replicated traditional Indian patterns where all rooms opened onto a central courtyard, and extended this to a larger student community who, the founders hoped, would come together and form close bonds with each other. Meetings and assemblies took place in its many large rooms.

The residential nature of the campus fostered the development of a culture unique to the college. In the nineteenth century, cultural activities on campus followed the British pattern, and some upper-class Indian ones. In 1884 the Siddons Union Club (now the Students' Union), modeled after the debating club at Cambridge began its activities in Strachey Hall. Sports such as cricket, with its emphasis on team spirit and cooperation, were also high on the agenda. Students were encouraged to develop the all-round abilities of the English public-school graduate. Rather than focusing narrowly on examinations, Aligarh teachers interpreted education broadly. The purpose of the college was to equip young men for public life as articulate managers, organizers, and administrators. They were to be the leaders of the new Muslim community that Sir Syed had envisioned. Leaving their families, bound together through their common experiences at the college, they were to be remade into a new brotherhood of distinguished men. Without a doubt, the college had a success disproportionate to its size in this mission. Among graduates of MAO College are Liaquat Ali Khan, the former prime minister of Pakistan; Zakir Hussain, a former president of India; and the nationalist leaders, Muhammad Ali, Shaukat Ali, and Rafi Ahmed Kidwai. The prominent educators A.R. Kidwai, Moonis Raza, and Nurul Hasan were AMU graduates. To this day, the residential nature of AMU and its campus culture have a powerful effect on its students. Many look back on their days at AMU as formative years both socially and culturally.

In its early years the MAO college administration picked a succession of Englishmen as principals, starting with Henry Siddons in January 1877. However, the most influential principal in the history of the college was Theodore Beck, a graduate of Cambridge University, who came to Aligarh in 1883. Under his guidance, the college detached itself from Calcutta University in 1887 and affiliated itself to the closer center, the Allahabad University. Beck, whose personal style was warm and affable, had a close personal relationship with the founder, Sir Syed, and was outspoken in what he considered were Muslim causes. He was only 40 years old when he died in 1899, just a year after his friend, Sir Syed, a victim of the immense stress of running a pioneer institution. His successor, Theodore Morison, carried on the tradition of intervening in issues close to Indian Islam, and he was closely involved in the Muslim Educational Conference, the organization that Sir Syed had founded in order to keep Muslim energies focused on educational innovation modeled on the Aligarh pattern.

In the early twentieth century, women's education became a cause for concern within middle-class Muslim circles. Shaikh Abdullah (a former student of the college, active in the Old Boys' Association and the Muslim Educational Conference) and his wife, Wahid Jahan, started the Aligarh Girl's School in 1906. The school moved to a mango grove not far from the Aligarh college and began classes as a residential school in 1914. Despite opposition from conservative circles, and from the fretful principal of the MAO College (W.A.J. Archbold), who worried about the effects on his male students of a girls' school so near, the school succeeded in creating a fashion for educating Muslim girls outside the home. To a certain extent, the Abdullahs had to make this radical idea acceptable to their middle-class constituency by keeping the general curriculum and culture of the institution conservative. By 1937 the school had established its success, thanks in no small part to the energy of Begum Abdullah, and it began offering college-level classes. The present day Aligarh Women's College, located at the same site, is the heir to this enterprise and is an active center for women's education in the city.

The history of AMU is also inseparable from the political history of modern India. Many scholars feel that the overly loyalist sentiments fostered at the college by Sir Syed and Beck contributed to the rift between Muslims and Hindus in modern India and created the grounds for the politics of separatism among Indian Muslims. It is true that Sir Syed criticized the Indian National Congress that held its first session in 1885. However, it is erroneous to suggest that he is the founding father of Muslim separatism in India. Sir Syed disapproved of any organization that embraced agitational politics. It was for this reason that he asked MAO College students to stay away from the newly created National Muhammadan Association in 1877 which was a political group in Calcutta. Besides, from the beginning, the MAO College was open to non-Muslim students as well.

Aligarh Muslim University is associated with the creation of Pakistan, the Muslim-majority country to the northwest of India. In October 1906, a group of activists, mostly from the Aligarh college, went in a deputation to Simla, the summer capital, urging the Viceroy, Lord Minto, to consider the Muslims a separate electorate from the Hindus with separate representation, in the forthcoming imperial reforms. That same year the Muslim Educational Conference transformed itself into the Muslim League, an explicitly political organization. The dreams of Sir Syed to keep the Muslim community aloof from politics receded. After all, the college had been founded on a political relationship—between the Muslim middle classes and the British rulers.

The hopes and dreams of the college administration, of instilling total loyalism, were not always realized. There was another powerful tradition of dissent that developed among students on campus. This manifested itself in student strikes against the administration, the most serious

one being in 1907 when students refused to attend classes, protesting against the high-handedness of the faculty in general and the European faculty in particular. Muhammad Ali and Shaukat Ali, brothers and both former students and active members of the Old Boys' Association, criticized the overzealous loyalism of the college administration. They were actively involved in the pan-Islamic movement and formed an alliance with Mahatma Gandhi in his first Non-Cooperation Movement in 1920. Gandhi spoke to college students at a hugely attended rally in October 1920 and urged them to transform their institution into a truly national institution. On October 29, 1920, at a crowded rally at the College mosque, Muhammad Ali announced the inauguration of a new institution, the Jamia Millia (now the Jamia Millia Islamia University in New Delhi) which was to mark a departure from the government-funded and loyalist Aligarh college. Significantly, all the participants in and supporters of this action were graduates of the MAO College. Thus, MAO College gave to the Muslim community not only leaders who preached loyalism and later separatism, but also talented intellectual activists such as Rafi Ahmed Kidwai and the Ali brothers who participated in the anti-colonial movement.

In December 1920, after the momentous incidents on the campus, the college was formally renamed a university, which had the power to grant degrees in its own name. Its social and cultural clout diminished after India and Pakistan gained independence separately on August 15, 1947. Many of its leading intellectuals, including the poet Iqbal left for Pakistan, leaving the university rudderless. However, as a symbol of community activity and solidarity, AMU remained unsurpassed. Jawaharlal

Nehru, the first prime minister of independent India visited it in 1955, and in 1960, the Ford Foundation donated 2 million rupees toward the building of the Kennedy House on the campus. Aligarh Muslim University is still a major center of higher education in north India and is likely to maintain its status as such.

**Further Reading:** Aligarh Muslim University is always mentioned in any book about the partition of India and Pakistan in August 1947. *Struggle for Pakistan: Tragedy of the Triumph of Muslim Communalism in India, 1906–1947* by Lal Bahadur (New Delhi: Sterling Publishers, 1988) and *Modern Muslim India and the Birth of Pakistan, 1858–1951* by Sheikh Mohammad Ikram (Lahore: Sheikh Muhammad Ashraf, 1970) present the opposing arguments on the subject of partition. *Separatism Among Indian Muslims: The Politics of the United Providences' Muslims, 1860–1923* by Francis Robinson (London; New York: Cambridge University Press, 1974) also studies this theme. Books specifically on AMU are few and tend to concentrate on the earlier history of the institution. The standard text on the Mohammedan Anglo–Oriental College is *History of M.A.O. College*, by S.K. Bhatnagar (Aligarh: Asia Publishing House, 1969). For a more analytical treatment of the college, there is *Aligarh's First Generation: Muslim Solidarity in British India* by David Lelyveld (Princeton, New Jersey: Princeton University Press, 1978). The history of Aligarh's Women's College is taken up in "Shaikh Abdullah, Begum Abdullah and Sharif Education for Girls at Aligarh" by Gail Minault, in *Modernization and Social Change Among Muslims in India* edited by Imtiaz Ahmad (New Delhi: Manohar, 1983).

—Sharmishtha Roy Chowdhury



# AMHERST COLLEGE

## (Amherst, Massachusetts, U.S.A.)

<b>Location:</b>	In Amherst, 100 miles west of Boston.
<b>Description:</b>	A private college enrolling approximately 1,570 undergraduate students.
<b>Information:</b>	Office of Admissions P.O. 5000 Amherst, MA 01002-5000 U.S.A. (413) 542-2328
<b>Visiting:</b>	Regularly scheduled during the school year, four times daily: 10 A.M., 12 noon, 2 P.M., and 4 P.M.

Amherst College came into being almost by accident. The very idea of establishing a college was born of a fundraising effort that missed. Amherst Academy had been open for three years in 1817 when the school's trustees decided to reach for a higher goal and train "indigent pious young men for the ministry." To do that, they reasoned, the school needed a professorship of languages. Colonel Rufus Graves, the trustee chair, went to Boston and the surrounding area to solicit funds for the new position. However, after several months, the funds were not realized.

As one of the trustees, the illustrious Noah Webster, compiler of *An American Dictionary of the English Language*, stated: "the establishment of a single professorship was too limited an object to induce men to subscribe. To engage public patronage, it was found necessary to form a plan for the education for the ministry on a more extensive scale." The trustees thus decided to seek funds for an entirely new institution.

Ironically, Lord Jeffrey Amherst, after whom the town and college were named, never visited. A British soldier who seized Louisburg on Cape Breton Island from the French in 1758, Amherst became a colonial hero and was appointed commander-in-chief of English forces in North America. (Today's Amherst College varsity team players are called Lord Jeffs and Lady Jeffs.)

In 1818, a permanent charity fund of \$50,000 was established. Five-sixths of the interest was earmarked for scholarships, with the remaining one-sixth added to the principal for perpetual increase. No money was provided for construction, so students from Amherst Academy dug building foundations, and area residents contributed teams, ox carts, and building supplies. Construction was

halted several items when material such as bricks and lime ran out, and contributions had to be sought from churches and individuals.

Four buildings were constructed in seven years. The first, South College, was completed in August 1820. It housed laboratories, recitation halls, and sleeping space for students, but no actual bedrooms. Large, square rooms served as both dormitories and study halls. On the day the cornerstone was laid, Webster was named president of the board of trustees. A popular figure in the town, Webster was often seen farming and conversing with other farmers. In May 1821, Zephaniah Swift Moore, ■ former president of Williams College, was elected to serve as the institution's first president. Classes began that September. Moore was a popular president and his death at the age of 53, just before the school's second commencement, was devastating to the graduating seniors. Within a month, the board of trustees elected one of its own, Herman Humphrey, to succeed Moore. A graduate of Yale and a pastor by profession, Humphrey subscribed to a strict religious orthodoxy and abstinence from tobacco, traits that did not endear him to the student body. Nevertheless, he served as president for 22 years, stepping down in 1844 over budgetary disputes.

The first two requests for a state charter, brought before the 1824 state legislative hearings held in Amherst's Boltwood Tavern, were denied. Although the college was supported by students, faculty, and most of the town's residents, heavy opposition was voiced by Harvard and Williams Colleges, which viewed Amherst as unwelcome competition. Some wanted to move Williams College to Northampton, seven miles west of Amherst, a move that would have prevented the establishment of a new college. A public debate ensued with newspapers in Boston and New York taking sides on the issue. Ultimately, the legislature bowed to growing support for Amherst and granted the institution a charter in 1825. Although the school's founders were primarily orthodox Calvinists and a close affiliation existed between the college and the First Congregational Church in town, the charter did not tie the college to any creed.

Bachelor of arts degrees were conferred on previous graduates and on the class of 1825, with President Humphrey declaring the seniors "the first legitimate sons of the college," a statement that inevitably resulted in protests from previous students whenever it was repeated. In truth, the first Amherst student to receive a bachelor's degree received it from Union College in New York even though he studied at Amherst. It was 1823, Amherst was not yet chartered, and David O. Allen, a member of the





*Amherst College*

second graduating class, was teaching in Leominster, Massachusetts, during the winter break of his senior year. He received an appointment as principal of Groton Academy, but a Groton bylaw stipulated that the principal must be the graduate of a college. Since Amherst was prevented from granting degrees, then-President Moore arranged with the president of Union College to administer that school's senior examination to Allen, who passed

it and returned to Amherst, diploma in hand, to complete his studies.

Edward Hitchcock, third president and a professor of chemistry and natural science, was mostly self-taught. Eye trouble prevented him from attending Harvard, but he studied science on his own and later attended Yale for one year to study geology. His efforts gave the school a permanent endowment, a balanced budget, three build-

ings, and a higher reputation for scholarship and sound finance. During his nine years as president, Hitchcock was critical of the founder for his architectural judgment and for constructing dormitories. The architecture of *Woods Cabinet, or Octagon*, built in 1848 for the departments of astronomy and geology and today the home of the Black Student Union, was more to his liking. Hitchcock would have preferred no dormitories because he believed that in a rural place such as Amherst, students should find comfortable rooms with residents of "good Christian homes." To counter the effects of dormitory living, he invited freshmen to meet the families of the faculty and of others in the village. Hitchcock's wife Orra received undergraduates at the president's house every two weeks and opened the house on Monday evenings for prayer meetings.

Religion was a factor in William A. Stearns' decision to become the fourth president at Amherst. He left his life in the eastern part of the state in 1854 because he felt it was God's will. Once in Amherst, he considered the students "rough strong scholars" and lamented that the ministry had become "vulgarized." Nevertheless, Stearns saw the college through the tumultuous Civil War period. During his tenure, the college's first gymnasium was built and a department of hygiene and physical education was formed.

Stearns' successor was the mild-mannered Julius H. Seelye, a professor of philosophy. Famous for his "question box," a weekly one-hour meeting with seniors, Seelye encouraged the students to be independent and self-governing. In fact, he expanded the powers of the student senate.

However, his most significant achievement was likely his appointment of Amherst graduate Charles Edward Garman to the position of associate professor of moral philosophy and metaphysics. The stories of Garman's years at Amherst have reached mythical proportions. He was admired and sought after for his innovative teaching methods. Many students of the period, including Calvin Coolidge, an 1895 graduate, cited Garman as a driving influence in their lives.

Coolidge's time was also known for a marked conflict between freshmen and sophomores. The latter were a threat to any freshmen group activity, even one so innocent as having a group photograph taken. Sophomores carried canes, but did not permit freshmen to do so. By the 1890s, the cane conflict had escalated into a sort of sporting event at the beginning of each term, at night under torchlight. The "cane" was now a long broom handle and students competed to see which class had the most hands on it after an eight-minute brawl.

Amherst's sixth president, Merrill E. Gates, was not so well-loved. One student wrote home: "The religious life of the college is carried on . . . fully a quarter of a century behind the times." Gates, a former president of Rutgers College, was orthodox and evangelical. He often sponsored religious revivals, but they were not so successful

as the revivals sponsored by President Humphrey had been. Students and some professors soon considered him little more than a name-dropper and an actor. As one alumnus put it, "The truth is that beneath President Gates' rather showy exterior were only a shallow intellect and shallow character. When this opinion became widespread, Gates was doomed."

Student contempt for President Gates was mixed with pride in their school, as evidenced by the alumni yell of the class of 1894, heard day and night: "Hi, Prexy, Hi / We know you're a sham / But we don't give a Damn / We're alumni-i, Ninety-Four." In the evening, students shouted this in front of the president's door and then ran to avoid possible expulsion.

That Gates treated the students like children was a common complaint. When students in his class on ethics did not memorize long definitions, he had them recite in unison. Perhaps his view of the students as schoolboys contributed to his quarrel with the college senate. In the autumn of 1893, when Gates suspended a student for cutting classes, the student senate protested that its rights had been usurped and requested that the student be reinstated so that the senate could consider the matter. Because the president refused to yield, the faculty was forced to oppose the student senate. Newspapers reported the disagreement, alumni took sides, and the student senate resigned. Student self-government, which had been called the "Amherst System," was no more.

For several years the college catalog featured blank spaces in place of the names of student senators, with an explanation that senators had not been elected by press time, and eventually the catalog omitted any mention of the senate. More than 20 years later, alumni asked trustees to grant a degree to the student who had been suspended on grounds that he had been wronged, and trustees agreed. (Today's students govern themselves through an active student government organization.) After the clash with the student senate, President Gates requested a leave of absence "on account of impaired health" and a triumvirate ruled until he resigned three months later.

Any discussion of Amherst College would be incomplete without mention of the Dickinson family. Edward Dickinson, father of poet Emily Dickinson, was the college's treasurer from 1833 to 1873. His son, William Austin, succeeded him. Austin Dickinson, as he was called, was known as an eccentric. As a young man he was often seen wearing a yellow hunting coat, and in his later years he sported a green wig. However, most of the talk centered around his 13-year affair with Mabel Loomis Todd, the editor of Emily Dickinson's first book of poems and the wife of an Amherst astronomy professor. After Austin's death in 1895, a bitter legal battle ensued as Mabel attempted to claim a parcel of land that Austin had left to her. An audit of Austin's office also brought to light an employee's use of \$5,500 in school funds for stock specu-



lation. Although the former treasurer was not implicated, he had been lax in collecting student bills, causing the school to operate at a deficit. In spite of the upheaval he caused, the townspeople were fond of Austin Dickinson and his passing was officially mourned for three days.

In spite of Edward S. Dwight's 1803 description of Amherst as "one of the most impressive and delightful objects which can be seen in this country," the land was considered irreclaimable from alluvial bottoms and marshes. Today, the campus is comprised of 964 acres, which include a wildlife sanctuary, a forest, an observatory, and a planetarium.

The college's liberal arts curriculum is designed to guide students toward intellectual competence rather than train them for particular professions. Students study in 28 academic departments with an open curriculum and no distribution requirements. The only required course is "Introduction to Liberal Studies" for first-year students.

Since 1976 Amherst has been fully coeducational. Students represent every state in the union and many countries. In 1984 the college, which had already purchased fraternity property, abolished fraternities. The buildings are now dormitories, reserved mostly for upper-class students, and theme houses such as a language house, a food cooperative, and a house devoted to African-American culture.

Amherst College's contributions include the nation's first college department of hygiene and physical education, the first undergraduate neuroscience program in the country (1973), the "Amherst System" of student self-government, and the "Amherst Idea." The latter resulted when the class of 1885 celebrated its 25th anniversary by presenting a memorial to the college, with the stipulation that entrance be by compulsory examination, that teachers' salaries be increased, that the number of students be limited, and that the bachelor of science degree be eliminated. As one professor at the time put it, the scientific course of study was one "whereby a man could get in, through, and out with the minimum of cerebration." Today, Amherst offers only the bachelor of arts degree.

The college trustees govern the Folger Shakespeare Library, established in Washington, D.C., by Henry Clay Folger, class of 1879, and his wife, Emily Jordan Folger. The Robert Frost Library on campus is named after the poet, who taught at the college for four different periods, from 1917 until his death in 1963, when the new building was dedicated, with President John F. Kennedy in attendance.

Amherst participates in a five-college consortium with Hampshire, Mount Holyoke, Smith College, and the University of Massachusetts. Students have access to courses and other resources at all five schools. Amherst students may also study in exchange programs, including one in Japan, through a special relationship with Doshisha University, founded by Joseph Hardy Neesima, class of 1870, the first Japanese to graduate from a western institution of higher education.

**Further Reading:** Hendrik Booraem's *The Provincial: Calvin Coolidge and His World* (Lewisburg, Pennsylvania: Bucknell University Press, and London: Associated University Presses, 1994) includes colorful descriptions of college life in the late 1890s. Claude Moore Fuess' *Amherst, The Story of a New England College* (Boston: Little Brown, 1935) takes the story through 1934 and includes several illustrations of the school and its faculty. "*The Consecrated Eminence*": *The Story of the Campus and Buildings of Amherst College* by Stanley King, Amherst's president from 1932 to 1946 (Amherst, Massachusetts: Amherst College, 1952) details the growth of the college's campus and buildings. Polly Longworth's *Austin and Mabel* (New York: Farrar Straus, 1984) relates the love affair between Austin Dickinson and Mabel Todd, with narration from the author and love letters between the two. W.S. Tyler's *History of Amherst College during Its First Half Century, 1821-1871* (Springfield, Massachusetts: Clark W. Bryan, 1873) covers the college's first 50 years.

—Diana D'India



# ANTIOCH UNIVERSITY

## (Yellow Springs, Ohio, U.S.A.)

**Location:** Yellow Springs, Ohio, 18 miles east of Dayton, Ohio. Other campuses are at Keene, New Hampshire; Seattle, Washington; Los Angeles and Santa Barbara, California.

**Description:** A private, coeducational institution of higher learning, which requires that undergraduate students at the Antioch Campus participate in a program alternating work and study. Students at New England and California campuses are adults from 23 to 70 years old. Antioch Seattle offers programs leading to B.A., M.A., and M.S. degrees.

**Information:** Public Relations Office  
795 Livermore  
Yellow Springs, OH 45387  
U.S.A.  
(513) 767-6382

**Visiting:** Call the school's admission office at (513) 767-6400 for details of visitors' weekends or to arrange for individual tours.

In the twilight of his remarkable career, the educator, social reformer, and abolitionist Horace Mann declined an invitation to run for governor of his native Massachusetts to become president of a new college, Antioch in Yellow Springs, Ohio. In 1850, members of the Christian Church (hereafter referred to as Christians), a Protestant sect, meeting at Marion, New York, had voted to establish that college and to raise \$100,000 with which to endow it. The Christians were a loosely bound coalition of Protestant groups assembled from several states. Their liberal religious platform afforded latitude for differing doctrinal views but doubtless weakened the ties among its members. It did, however, attract favorable attention from Unitarians.

The committee charged with planning for this institution—meeting on October 5, 1850—agreed that the college would be located in the state that donated the most money for the endowment and the one that was both the most healthful and most accessible to travelers. Founding members further specified that two-thirds of the trustees and a majority of the faculty of the new school would at all times belong to the Christian group, and that the college would afford equal privileges to students of both sexes. The convention was silent on the subject of admitting African Americans. Meeting in Ohio, a subcommit-

tee of Christians recommended that the proposed college should be known as Antioch College. The group listened to presentations by delegations from various areas in Ohio, each promoting its community as the site for the new college. William Mills, a member of one of the leading families in Yellow Springs, offered 20,000 acres for a campus and \$30,000 for the establishment of the college. A bonus offered by Yellow Springs was that the railroad ran through the community and that the station was, in fact, directly across from the acreage donated by Mills.

While the founders of Antioch favored coeducation, an idea that had begun at Oberlin College 20 years earlier and was generally popular, they didn't intend their college to be nonsectarian. Few, if any, nonsectarian colleges existed anywhere at that time, and none in the Ohio Valley. Despite the Marion Convention's clear intention, members of the subcommittee decided that the new school would, indeed, have no sectarian platform. Hence, the denominational tension between the two factions grew. The struggle to make Antioch a Christian school continued for more than 40 years, notwithstanding clear evidence that the Christians could neither fund the school nor provide enough students to warrant placing the college in their hands.

Preparing for 1,000 students, the planners voted to erect three buildings as the heart of the new campus. The buildings were much larger than was needed, since—from 1853 to 1859—enrollment exceeded 500 only once, in 1857, and wouldn't do so again until the early 1920s. Hence, the cost of repairs grew burdensome. Nonetheless, the original buildings still stand.

Mann, a staunch Unitarian, was persuaded to take the presidency because he believed that the college would be liberally endowed, coeducational, and nonsectarian. Indeed, the school was coeducational, but it was far from well endowed, and strife over sectarianism would continue for years. Mann believed Antioch's mission to be to educate young people to contribute to the development of industry and commerce in the vast area surrounding the school.

The first college catalog was issued in March 1853. Its prologue stressed the importance of good health habits, supported cooperation and human brotherhood, and called for the teaching of sound ethical and moral principles, rather than the indoctrination of dogmas. The curriculum consisted of Latin and Greek, mathematics, English, history, philosophy, and science. Since demand for teachers in the vast region far outstripped supply, courses in teaching methods were added.

In his inaugural address, delivered at noon on October 5, 1853—exactly three years after the Marion Convention



*Antioch University*

resolved to establish a college—Mann spoke for more than two hours. He commented on the wonders of astronomical space and time, on the state of human knowledge of physical and chemical laws, and on the Greek precept of a sound mind in a sound body.

Within a few months of his ascendancy, however, Mann's plan to present features of all religions was termed a "dark plot" that would "Unitarianize" the school and put it on a thoroughly liberal basis. Within just a few months, both faculty and trustees were split into pro- and anti-Mann factions. The biggest salvo to be aimed against Mann was fired by the Reverend Ira W. Allen, a professor of mathematics who was subsequently dismissed and went on to write a vicious account of campus affairs that was circulated among the Christian churches. Mann bore up and pressed on.

His trials were many, but money overshadowed them all. In actuality, the school was bankrupt before it ever opened. By the time the first class was graduated, Antioch's principal supporter had been wiped out in the panic of 1857. Two years later, the college went under the auctioneer's hammer. Mann and some friends bought it, but the luster was gone. They struggled on, however. During the final three years of Mann's presidency, the college showed a deficit of \$5,000 each year in a budget of \$13,000.

All the trials proved to be too much for Mann, who died late in the summer of 1859. His wife called him a martyr, and Ralph Waldo Emerson lamented his passing, writing that Mann had wasted his talents in trying to salvage Antioch. A later historian of liberal arts colleges, Ernest Earnest, would write that Mann "had been crucified by crusading sectarians."



The financial hardships of the early days continued almost unabated for 60 years. To keep the school afloat, the Christians raised funds through a joint control agreement with Edward Everett Hale and his fellow Unitarians. In 1865 that group at last raised an endowment of \$100,000. In effect, the Christians and Unitarians became joint sponsors and owners. That joint sponsorship, however, was only partly successful. The dissension it engendered diverted funds and energy from management of the school. Hale, who served almost 35 years as a trustee, reported that his hopes for the college were realized only to a small degree.

Mann was succeeded by the Reverend Thomas Hill of Waltham, Massachusetts, considered one of Harvard's most brilliant graduates. Hill was reluctant to accept the post as Antioch's president because of the school's unsound financial condition, but he was finally persuaded to do so on condition that operating expenses and faculty salaries be guaranteed. However, even the guarantee didn't completely solve the school's problems. Hill received only part of his salary and had to borrow and call on friends to meet his own expenses and to keep the school operating.

Hill could not long tolerate such conditions and resigned after three years; his successor survived but four years. Between its opening and 1920, a span of 67 years, the school was headed by ten presidents and seven acting presidents, and from 1902 to 1906 a dean performed the duties of president. Furthermore, the college was dormant during the Civil War and closed in 1881-82. During these troubled years graduating classes were very small. Indeed, 34 of the graduating classes included five students or fewer; in five years no students were graduated at all. College enrollment was typically small, often with most students doing preparatory work.

In June 1881, Antioch's financial condition once again reached the critical stage. Trustees voted to suspend the college for three years or until income amassed from the endowment would justify reopening. An article in the January 14, 1882, issue of the *Cincinnati Gazette*, commenting on the school's closing, blamed it on Mann's prickly personality, even though he had been dead for more than 20 years. Blame was also attributed to unfavorable religious doctrine and social surroundings. The author of the article, quoting the Christians, declared that Antioch had been blighted by aggressive radicalism since the Unitarians took over and, hence, had lost its constituency. Clearly religious bias was still rampant.

Christians of southwest Ohio, the Yellow Springs area, were disturbed by the school's closing and, in May 1882, calling themselves the Christian Education Society, developed a plan. Their first proposal, that control of the college be turned over to Christians who would promise to raise another \$100,000 endowment and bring about a significant increase in enrollment, was firmly rejected by trustees.

The second proposal was more modest, asking that the Society name the president and faculty, who would have to be confirmed by the trustees. In addition, income from the endowment (about \$6,000 a year) would continue to be applied to the school's expenses. When the trustees agreed to this proposal, they appointed a managing committee to work with the Society. Antioch reopened in September 1882, though financial problems continued to plague the school.

At the 1919 annual meeting of the board of trustees, Arthur E. Morgan, of Dayton, Ohio, assumed a vacant place. A Unitarian, Morgan was placed on the board at the behest of Charles W. Eliot, president emeritus of Harvard University. Morgan for years had formulated educational designs in his mind and had been seeking a school at which to put them to use. Recognizing that his fellow board members had no plans for improvement and that Antioch was a school in danger of collapse, Morgan took control. Within just a few months, Morgan presented to the board a "Plan of Practical Industrial Education." Impressed, the board endorsed the plan and authorized him to carry out his plans for Antioch along the lines he proposed. In effect, Morgan became head of the college, with Professor W.M. Dawson as titular president.

In April 1920, at a meeting of the trustees' executive committee, Morgan reported on his plans: the college would remain coeducational, would maintain high standards, and would continue to accept African Americans, as it had since 1863. It would be reorganized to accommodate about 500 students who would be on a cooperative plan of alternate work and study; it would aim to develop well-rounded students, rather than those with highly developed specialties. An early advocate of small business, Morgan planned to include technical industries in the academic community. On July 6, 1920, Morgan was elected president of Antioch by unanimous vote of the trustees. His reorganization was successful, and Antioch reopened in September 1921, under the cooperative plan.

The new board of trustees was vastly different from the old. While the former trustees were mostly from Ohio, elderly, and, for the most part, ministers, Morgan's new board of 20 trustees included four from New York, two from Massachusetts, and one from Michigan. None was a minister. They were industrialists, men of prominence with an interest in education. Thus the new governing body had names, resources, and business acumen.

The major problem Morgan faced in hiring new faculty was finding men whose personal qualities fit his utopian ideals while still meeting the usual standard of academic competence. He kept only five of the inherited 13 staff members, then went looking for men with practical experience and broad interests, who would commit themselves to the adventure of working out a new philosophy at Antioch. The task was not an easy one, since finding qualified industrialists with at least a bachelor's degree, who would accept the lower salaries Antioch



could offer was next to impossible. But Morgan persisted and eventually fielded a faculty of 25 in 1922 and then, a year later, 43.

Typical of the type of teacher Morgan sought was Basil H. Pillard, who joined the faculty in 1928. While Pillard had earned only a bachelor's degree from Yale, his experience included a year of teaching and eight years in business. Those years included one as a copywriter and account executive in an advertising agency. At a traditional liberal arts college, such a curriculum vitae wouldn't qualify a man for the faculty, but it was no barrier at Antioch. Pillard arrived as a teacher of business administration, then moved on to English literature, and later became dean of students.

Morgan's commitments to social planning was a part of his pursuit of utopia, a critical element in his revision of the college. Work, education, and the rest of life should have close ties if men are to develop good character, he believed. He also believed that the small community offered the best potential for living and working together.

The college acquired a reputation as one of the most distinctive and academically challenging colleges in the country. In the first year of the new order, enrollment multiplied five-fold, and similar growth continued for several years. In the early 1930s it reached a plateau of about 650 students. By that time, fewer than one student in five was from Ohio.

As successful as he was in transforming Antioch from a tiny, provincial liberal arts college to a challenging, progressive, and growing one, Morgan wasn't entirely successful at eliminating the school's persistent financial problems. Failing to raise the half million dollars authorized by himself and the board of trustees, Morgan was forced to turn to one of the new trustees, Charles F. Kettering, a Dayton industrialist. That benefactor loaned the strapped institution \$300,000 and Morgan undertook the raising of funds for annual operating expenses, by now in excess of \$100,000 a year. He hoped that college-controlled small industries would contribute to the school's coffers, but they did not.

The Great Depression exacerbated financial woes, forcing the school to rely ever more heavily on tuition. Such a reliance has become a permanent feature of Antioch. While many schools cover less than half their expenses with tuition fees, Antioch finances about three-quarters. Such a practice is feasible because of the work-study nature of the school's program. Students alternate weeks of study with weeks of off-campus work, thus raising money to fund their educations and doubling the number of persons who can utilize the campus.

Although Morgan felt that his dreams had been somewhat diluted, the school had changed significantly during his tenure, and generally for the better. That change didn't stop with Morgan's departure. Antioch became a home for liberal Quakers and Unitarians and, by the advent of World War II, had an unusual educational program built

around work, classroom, and campus participation. Student self-government was practiced to an extent all but unknown in most schools in the United States.

With this reputation for educational innovation and progress, it's no surprise that Antioch directors wanted to take the lead in extending educational opportunity to adults, minorities, and the poor. Thus, in the mid-1960s the administration decided to expand beyond the boundaries of Yellow Springs, Ohio.

Outreach centers were created in Putney, Vermont; Philadelphia, Pennsylvania; and Columbia, Maryland. A law school that had been part of George Washington University in Washington, D.C., was adopted by the college in 1972. Some of these centers accomplished the aim of spreading educational opportunity and innovation. With 33 centers operating in the nation and abroad, the school's name was changed to Antioch University in 1978.

Expansion finances were not well managed, however, and placed a huge drain on Antioch's resources. The North Central Association of Colleges and Secondary Schools (NCA), responsible for the school's accreditation, found the president's office located in New York City, even though no academic programs existed there. The NCA found, too, poor long-range planning and academic quality control, as well as problems that had plagued the school since its inception: debt and deficits.

By 1983 the grim picture had brightened somewhat. Most of the centers had been closed and planning had improved. But the fortunes of the college continued to decline; enrollment dropped from a high of 2,500 in 1972 to 1,600 in 1975 and 600 in 1981. By 1985 the situation was perilous: full-time enrollment was down to 420, finances were in disarray, and huge deficits had led to severe cuts in faculty and staff.

In March 1985, Alan Guskin, Chancellor of the University of Wisconsin at Parkside for ten years, was named president. At the same time, the board of trustees moved the administrative offices back to Yellow Springs. The new president and the board were determined to rebuild the reputation of Antioch University.

Antioch School of Law in Washington, D.C., was closed; strict fiscal spending policies were introduced; effective long-range planning became a major management tool. The adult education campuses were asked to contribute funds to rebuild the college, creating a continuing endowment that would provide the school with stable finances. At last Antioch would be able to plan for the future. When NCA surveyed the school in 1988, it found some problems still existing, but acknowledged they were being successfully addressed.

In final steps to adjust the school's programs, the School for Adult and Experiential Learning—now the McGregor School—was formed in 1988. Campuses at Philadelphia and San Francisco were closed in 1989, and the London Centre was closed in 1990. Antioch is finally fulfilling Arthur Morgan's dream: "While we are learning

to be effective, we should also be learning what it is most worthwhile to be effective about.”

**Further Reading:** Burton R. Clark’s *The Distinctive College: Antioch, Reed and Swarthmore* (Chicago: Aldine, 1970) defines the story of Antioch far better than many longer treatises. Robert L. Straker’s *Brief Sketch of Antioch*

*College (1853–1921)* (Yellow Springs, Ohio: Antioch College, 1954) does an excellent job of illustrating the school’s early days, as does Ernest Earnest’s *Academic Procession: An Informal History of the American College, 1636 to 1953* (Indianapolis, Indiana: Bobbs-Merrill, 1953).

—Ruth Pittman

# ATLANTA UNIVERSITY CENTER (Atlanta, Georgia, U.S.A.)

<b>Location:</b>	Numerous locations in Atlanta.
<b>Description:</b>	The Center consists of six colleges and universities: Atlanta University, Clark College, Morehouse College, Spelman College, Morris Brown College, and the Interdenominational Theological Center. It is the largest complex of predominantly African-American institutions of higher learning in the United States.
<b>Information:</b>	Atlanta University Center Office of University Relations 223 James P. Brawley Drive, SW Atlanta, GA 30314 U.S.A. (404) 880-8094

It would be difficult to speak of African American higher education without mentioning collectively the institutions that form the Atlanta University Center: Atlanta University, Clark College, Morehouse College, Spelman College, Morris Brown College, and the Interdenominational Theological Center. Today these institutions make the Atlanta University Center the largest complex of predominantly black colleges and universities in the country and one of the most significant.

Atlanta University, the hub of the center, was founded in the aftermath of the Civil War and the devastation of Atlanta wrecked by General William Tecumseh Sherman's Union army. In the fall of 1865, missionaries Reverend Frederick Ayers and his wife arrived in Atlanta from Belle Prairie, Minnesota, under the auspices of the American Missionary Association (AMA), and immediately took an interest in the education of Atlanta's African-American community. They began to conduct classes for blacks in a railway box car, providing primary and secondary schooling, but Frederick Ayers envisioned the establishment of a university that could help the newly freed slaves fulfill their role as responsible citizens. The AMA liked and endorsed Ayers' idea, and two years later the state of Georgia provided a charter for a university department. However, there were not enough black students until 1872 to warrant the opening of the university department. Four years later, Atlanta University awarded its first bachelor of arts degrees to six male students.

Clark College's classes were first held in 1869 in a small room in Clark Chapel Methodist Episcopal Church in Atlanta's Summerhill District. The school was under the

direction of Bishop Gilbert Haven, who wanted Clark to "set the tone" for all of the country's black Methodist educational institutions. During its early years, Clark's location changed many times before the school bought 450 acres in south Atlanta in 1877. By then, the college's curriculum had become more specialized, changing in function from a college offering the basics of learning to one that emphasized the training of ministers and teachers. By 1883, Clark was offering college degrees. That same year, Clark established the Gammon School of Theology as a department within the college. Five years later the Gammon school became an independent theological seminary.

During the latter part of the nineteenth century, both Clark and Atlanta University grew slowly. By 1900, Atlanta University had an enrollment of only 296 students, 104 males and 192 females, and a budget of just \$40,000. The university, in fact, had no endowment and had to raise \$25,000 of its annual budget through gifts. Atlanta University, however, was beginning to distinguish itself through its graduates, many of whom continued their education to become doctors, ministers, teachers, businessmen; through its conferences and published proceedings, which discussed, studied, and analyzed social problems affecting African Americans; and through its faculty, which included several prominent African-American scholars. W.E.B. DuBois, an African-American intellectual who had studied at Fisk, Berlin, and Harvard, came to Atlanta University in 1897 as a professor of history and economics. While a member of the faculty, DuBois completed his classic book *The Souls of Black Folk*, and founded the Niagara Movement in 1906 to promote black freedom.

In 1907, Edward Twitchell Ward, the son of Atlanta University's founders, succeeded Horace Bumstead as president of Atlanta University. During Ward's administration, Atlanta University began to develop increasingly closer ties with Clark, as well as Morehouse College, Spelman College, and Morris Brown College. Meetings were held between the various representatives of the black Atlanta colleges and universities to discuss how they could coordinate their efforts to educate African Americans. Mergers were even proposed. In 1912, Atlanta University joined Clark, Morehouse, Spelman, Morris Brown, and Gammon Theological Seminary to organize the "Atlanta Federation of Schools for the Improvement of Negro Country Life." The following year, Atlanta University and Morehouse worked together on a project that was supported by the Phelps-Stokes Fund and involved a study of crime in Atlanta. In 1914, Atlanta University and Morehouse offered their first joint





*Morris Brown College, Atlanta University Center*

course in business law and ethics, alternating location of the classes between the two schools.

Morehouse was founded as the Augusta (Georgia) Institute in the basement of the Springfield Baptist Church before the school moved to Atlanta in 1879 and changed its name to Atlanta Baptist Seminary. Started as an institution to prepare black men for the ministry and teaching, Morehouse, in its formative years, had a course of study similar to a high school, but the institution began to grow when John Hope became the college's first black president in 1906. President Hope attracted a number of talented faculty and administrators and expanded the curriculum. During Hope's tenure the college's name was changed to Morehouse College in honor of Henry Lyman Morehouse, the corresponding secretary of the Atlanta Baptist Home Mission Society. Many famous African Americans (Dr. Martin Luther King Jr., Julian Bond, Lerone Bennett, and Spike Lee, to name a few) would graduate from Morehouse College.

Spelman was founded in 1881 by Sophia Packard and Harriet Giles, two white women from New England, in the basement of Friendship Baptist Church in Atlanta.

The school had \$100 in capital and 11 students. Originally named the Atlanta Baptist Female Seminary, Spelman had as its objective the training of young black women for careers such as teaching and nursing. In 1884, the school was named Spelman Seminary in honor of Laura Spelman Rockefeller, wife of oil magnate John Davison Rockefeller. The institution awarded its first college degree in 1901 and in 1924 changed its name to Spelman College. One of only two remaining colleges for African-American women, Spelman was buoyed by a gift of \$20 million from entertainer Bill Cosby.

The African Methodist Episcopal Church founded Morris Brown College in 1881 after the adoption of a resolution at the denomination's North Georgia Annual Conference meeting calling for the "Christian education of Negro boys and girls" in Atlanta. Four years later, the institution received a charter from the state of Georgia and opened with nine teachers and 115 students. The college grew slowly, adding first a liberal arts college in 1894 and then a theology department for the training of ministers.

Atlanta University and the other black institutions of higher learning in Atlanta played a prominent role in

World War I. About 100 Atlanta University and Morehouse students were put through basic training as part of a student army training camp, which opened on the Atlanta University campus under a contract with the U.S. government. The university also trained two detachments of 243 soldiers in an army school for mechanics.

During the 1920s, cooperation accelerated in several areas. By the 1928–29 term, for example, all upper-level courses at Spelman and Morehouse were open to students at either college and at least three faculty members held joint appointments.

In 1928, the trustees of Atlanta University learned that “the General Education Board would be interested in helping Atlanta’s [black] institutions if among themselves they could come to some type of cooperative arrangement which would result in less competition among the institutions, reduce operating expenses, and place the combined resources of the institution behind the education of the students.” In February 1929, at a series of meetings, the Board of Trustees of Atlanta University, Spelman, and Morehouse worked out a general plan of affiliation that paved the way for the signing of an agreement, which became known as the “Atlanta University Affiliation.”

On April 1, 1929, the presidents of the three institutions signed the “Contract of Affiliation,” and John Hope was invited to become president of the university as of July 1, 1929. After discussing the offer with his family, Hope accepted, provided he could remain president of Morehouse until its endowment was raised so that it would be on a sound financial basis.

Under the terms of the agreement, Morehouse and Spelman would continue to be undergraduate colleges, while Atlanta University would concentrate on graduate education. Each institution would have its own trustees, but each would nominate three members of the university board, which, in turn, was authorized to elect five additional members.

Initially, the affiliation didn’t sit well with alumni, faculty, and students. Students at Atlanta University said that, if their parents approved, they would complete their undergraduate education elsewhere rather than transfer to Morehouse and Spelman. Meanwhile, many faculty worried about their futures and their pensions. Clark University and Morris Brown College worried about their future, too, since they were not asked to participate in the discussions leading to the affiliation.

But the general education board looked favorably upon the affiliation and gave money for the construction and endowment of a new library, which would be centrally located to serve all institutions of higher learning for blacks in Atlanta. Later, the general education board provided more funds to Atlanta University for the construction of a physical plant and for restricted endowments for both Atlanta University and Morehouse College. In 1930, the general education board entered into an agreement with philanthropist Edward Harkness, matching his gift

of one million dollars toward the endowment and the construction of new buildings. The Harkness and general education board grants were the largest ever received by Atlanta University from any individual or foundation in its history. The Harkness gift made possible an administration building, two dormitories, a dining hall for graduate students, and a new residence for the president.

In 1931, Atlanta University awarded Joseph A. Bailey the first master’s degree under the reorganization, and in recognition of the historic event, the institution held a special commencement. Among the requirements: all students were required to pass an examination in English fundamentals and composition, as well as a reading examination in German and French.

During the 1930s and early 1940s, Atlanta University increased its cooperation with Spelman and Morehouse and made a number of gifts of property to the institutions, helping to put them closer together in one geographic area. During World War II, Atlanta University trained numerous people in science, engineering, and war management programs and through a special program for the administrative section of the United States Army Air Forces. Meanwhile, Atlanta University, as well as Clark, Spelman, and Morehouse, provided living accommodations and classroom facilities for the army.

By 1950, Atlanta University had opened several graduate schools: library science (1941), education (1944), business administration (1946), and social work (1947). Enrollment in the graduate school during the regular academic term ran between 450 and 500 students, with another 1,500 to 2,000 registered for summer school. Atlanta University was on a solid financial and educational footing. The endowment had increased from \$300,000 in 1929 to a little over \$5 million in 1950, and during the same period, the budget jumped annually from \$70,000 to \$700,000. By 1950, Atlanta University was graduating one-third of all African Americans who earned master’s and doctoral degrees from American universities.

Rufus Clement formulated a program he hoped would prepare black students for the post–World War II world. Clement proposed establishing four graduate schools: law, education, business, and fine arts. The university’s educational council, which operated under the leadership of the Committee on Post-War Planning, approved the schools of education and business administration and proposed the expansion of library holdings. Another significant step in the historic mission of Atlanta University occurred in 1960 when the board of the university approved a petition for the establishment of a doctoral program in three fields: biology, education, and mathematics.

Atlanta University’s affiliation with Atlanta’s black institutions of higher learning was expanded in 1958 to include the newly created Interdenominational Theological Seminary (ITS), a cooperative project of four religious institutions, including Gammon School of Theology. The consortium was later expanded to include

three more members. In 1964, the state of Georgia issued a charter to the Atlanta University Center. To ensure that the consortium would be a viable entity, the consortium members hired Dr. Prince E. Wilson from Central State University in Ohio to become the executive secretary of the Atlanta University Center. The center grew from an institution with a modest budget of \$50,000 and one project in 1960, to one that had a \$2.3 million budget and 22 ongoing projects in 1973.

In 1972, a "Plan of Reorganization," developed by the consortium's six presidents and the executive secretary, called for a more centrally coordinated operation and attempted to increase academic and administrative effectiveness. In 1988, the Center experienced one of the biggest developments in its history when Atlanta University

and Clark College were consolidated into one university. The merger involved two distinguished institutions of higher learning with rich historical traditions that had begun after the Civil War. Another era in the history of the Atlanta University Center had begun.

**Further Reading:** For a detailed history of Atlanta University, read Clarence A. Bacote, *The Story of Atlanta University: A Century of Service, 1865–1965* (Atlanta, Georgia: Atlanta University, 1969).

—Ron Chepesiuk



# BARNARD COLLEGE

## (New York, New York, U.S.A.)

**Location:** In Morningside Heights, upper Manhattan.

**Description:** A private liberal arts college for women, enrolling approximately 2,200 students, affiliated with Columbia University.

**Information:** Office of Admissions  
Barnard College  
3009 Broadway  
New York, NY 10027-6598  
U.S.A.  
(212) 854-2014

Barnard College, the first college to admit women in New York City, was founded in 1899. Its origins, however, go back to 1879, when Dr. Frederick A.P. Barnard, the tenth president of Columbia University, wrote a report to the trustees discussing plans for admitting women to the university. Barnard, widely respected today for his writings on the development of the American university, was an earnest and public advocate of equal educational opportunities for women. He was an influential proponent of many reforms which had far-ranging effects on American education and which helped shape much of what Barnard has become. An advocate of a uniform system of evaluating college applicants, Barnard also lobbied for student self-government, the elective system, the professionalization of teaching, and graduate education.

In his 1879 report to the trustees, Barnard discussed for the first time the possibility of allowing women to study at Columbia. His report was supported by two petitions generated by Sorosis, an active women's club in New York City. Barnard was a supporter of coeducation, and in his report of 1880 he proposed that, for economic and administrative simplicity, women be educated with men in the same Columbia classrooms. He noted that Columbia could become coeducational more easily than existing finishing schools or relatively new women's colleges could hope to equal men's colleges in quality. He also mentioned the success of women at the University of London, and at Chiron College of Cambridge University.

Although he received no immediate response from the trustees, Barnard included arguments for opening Columbia to women in his reports for the next five years. In 1883, his report was accompanied by a petition with over 1,000 signatures. This petition was the result of an 1882 meeting at the influential Union League Club. At that

meeting, presided over by Parke Godwin, editor of the *Evening Post*, proponents of women's education came into dispute with antagonists such as Reverend Morgan Dix, the rector of Trinity Church. Trinity was the richest and most powerful church in New York, and had given Columbia (then Kings College) its first property in the eighteenth century. Dix argued that higher education for women tended to the "fantastic proceedings of female suffrage."

Despite this negative response, Columbia's trustees, in a mood of compromise, agreed to a collegiate course for women in 1883. This program was to prove a complete failure, largely because it did not provide any actual instruction. The name "course" was misleading, because in fact women were only allowed to take examinations leading to a degree—they were not permitted to sit in classes with the male students and had to do all their studying independently. In the collegiate course's four years of existence, only 30 women applied. One of these women was Annie Nathan (later Annie Nathan Meyer), who was to become a major catalyst for the creation of Barnard College. After pursuing the collegiate course for several months, she determined that it was inadequate: Women needed a genuine college education. At Meyer's urging, an advocacy group, the Friends of Higher Education for Women, was formed, and for the next six years they worked to promote the idea of a women's college at Columbia.

In fact, the idea of institutionalized higher education for American women was relatively new. In the mid-nineteenth century, many people felt that advanced education for women was too rigorous for their delicate constitutions; others argued that, while women were capable of the intellectual rigor required for advanced education, the social dangers posed by coeducational classrooms were to be avoided at all costs. New York City had no institution of higher learning for women; although the Normal School (now Hunter College) offered training for women teachers, its curriculum and requirements were not comparable to those of Columbia, for example, and it offered no degree. However, women had been attending colleges in the Midwest and East for several decades. Oberlin College, founded in 1834, was the first coeducational college, and in the 1870s the University of Michigan, Boston University, and Cornell University began to admit women. In addition to these coeducational opportunities for women, several women's colleges had been founded: Vassar in 1865, Wellesley in 1875, and Bryn Mawr in 1885. In 1879, Harvard opened the Harvard Annex (now Radcliffe) to allow women to attend separate courses.



*Barnard College*

In 1888, after six years of little success, Meyer discovered that Dix was opposed to coeducation rather than to women's education; he also disclosed to her that in 1883 the trustees had approved, in principle, the idea of a separately financed college for women but had chosen not to publicize the fact. The Columbia Review Committee, in its unfavorable report on the collegiate course, indicated that Columbia would recognize and provide faculty for a women's college under the proper circumstances. However, opponents to the idea of a women's college cited the low enrollment and eventual failure of the collegiate course as evidence that women did not really want a college education. In response to this misconception, Meyer wrote an article for the *Nation* in 1888, arguing that the failure of the collegiate course was due to its essential inadequacy rather than to a lack of interest from women. Meyer and the Friends of Higher Education for Women were in fact lobbying for a college on the Harvard Annex model, with separate classes for women but access to all the resources of Columbia. By this time, their advocacy of a women's college linked with Columbia was aided by the positive impression being made by the growing num-

ber of female college graduates and the impressive opening of Bryn Mawr College in Pennsylvania in 1885.

Many conservative Columbia trustees remained reluctant to admit women, for financial as well as for ideological reasons. Some believed that the addition of women would present additional administrative problems and strain limited resources. Although coeducation had been Barnard's goal, its achievement was inhibited by internal disputes among advocates of equal education. In addition to antagonists of higher education for women, Barnard, and, later, Meyer had to deal with three active factions: those who demanded coeducation, those who felt that an "annex" (like the Harvard Annex, Radcliffe) was acceptable, and those who were opposed to an annex because it put men and women in close proximity (this group preferred a separate women's college). Not until 1889, after a decade of fierce campaigning, did the trustees accept the compromise plan proposed by Meyer and an advocacy group led by the Friends of Higher Education for Women. This plan provided for separate classrooms and classes for women, off the Columbia campus (on-campus housing for female students was not part of the original



plan). However, the new college would be under the auspices of Columbia, and its students would receive a baccalaureate degree from Columbia. Professors would use both Columbia curricula and tests, and its trustees' activities would be approved by Columbia trustees. The education for women would be separate but strive to be equal.

In 1889, Barnard College, named after the man who had been working for its creation for ten years, opened its doors. Housed in a rented brownstone at 343 Madison Avenue, the first class consisted of 14 students enrolled in the School of Arts and 22 "special students" (non-degree candidates) enrolled in a science program. In 1890, Barnard was incorporated into Columbia University under the unique relationship underlined in the agreement of the previous year. Governed by its own trustees, it shared instructors and a library with Columbia; Barnard was administered under the president of Columbia, but had no dean of its own. While the initial budget provided funds for a "Lady Principal," no one ever took on that rather derogatory title. Instead, Ella Weed, a Vassar graduate recruited by Meyer as president of the Academic Committee, performed all the duties of a college dean during the school's first four years. Weed set strict entrance and academic standards to assure that the quality of the Barnard education equaled that of the men's college. In 1890, Emily L. Gregory, a botanist, became Barnard's first faculty member, and after the premature death of Ella Weed, Emily James Smith, a Bryn Mawr graduate, became the college's first dean. During her tenure, Smith emphasized intellectual discipline, high quality in instruction, and graduate opportunities.

Barnard's present campus, between 116th and 120th Streets on Broadway, is due in part to the generosity of three women, who donated funds for much of the four-acre campus. In 1896, three women offered land and buildings: Mrs. Van Wyck Brinckerhoff donated \$100,000, which bought a theater and classrooms; Elizabeth Milbank Anderson gave \$170,000 to finance a second classroom building; Mrs. Josiah M. Fiske financed Fiske Hall. Anderson had originally retained the architect Charles A. Rich to design a building for Roosevelt Hospital. When her gift to the hospital was not accepted, she donated a building to Barnard instead. As a result of this gift, Rich was the architect of all three original buildings on campus: Milbank, Brinckerhoff, and Fiske. Unlike Radcliffe, where the architecture of the women's college was purposely unobtrusive to avoid drawing attention away from Harvard, Barnard's original buildings were intended to assert the existence and expected permanence of the school. At the same time as Barnard was being built, Columbia's campus was being designed by Charles Follen McKim using Beaux Arts concepts in college architecture for the first time. While Yale and Bryn Mawr used Oxford and Cambridge as models, separating areas from each other and from the town by using walls, the Beaux Arts design called for massing, symmetry, axial

planning, and key focal points. Barnard shares materials, scale, and decorative treatment with Columbia, but axial planning and focal points were not used to a large degree.

From the beginning, Barnard's policy was to treat its students as responsible adults, consistent with Dr. Barnard's philosophy and the practice at Columbia. This was also made possible because Barnard was not a residential college, and there was less need to act in loco parentis than for other schools with on-campus dormitories. Unlike Radcliffe, Barnard seemed both to emphasize its relationship with the urban environment and simultaneously to develop aspects of campus and collegiate life found at suburban women's colleges.

The first class formed a sorority in 1894, and students also formed social relationships with male Columbia students, meeting them at teas and dances. In order to achieve status comparable to other women's colleges and to attract refined students, Dean Virginia Gildersleeve gave greater emphasis to college life. She began to pattern Barnard's campus life on that of the more rural Vassar and Smith and to downplay Barnard's uniqueness as an urban institution. A wide array of student organizations were fostered, with the residence hall offering an adequate setting for college activities. However, Barnard remained unique in that it did not attempt to protect its students by adopting finishing school attitudes or governing their morals and behavior. Under Gildersleeve, Barnard valued individual independence. Students and faculty were allowed to be politically engaged, and both groups were active in the ongoing battle for the woman's right to vote. Barnard even had an active socialist league in the 1910s.

Because Barnard's student body was more urban than that of most other women's colleges, the tension between the desire to be perceived as an elite women's college and the fact that Barnard served the needs of a cosmopolitan urban community eventually became an obvious problem. Barnard's student body was much more heterogeneous than that of Vassar or Smith, for example; many women of modest means mingled with a large group of wealthy society women from New York's social elite, who preferred to spend their debutante years in New York society rather than at some remote rural campus. This social inequality was a contributor to the sorority controversy. Because (as was typical at the time) sororities were restricted to the wealthy and the Protestant, by 1912 only one quarter of the student body belonged to Greek-letter sororities. In that year, the *Barnard Bear*, a student paper, published an article condemning sororities as useless and reactionary, undemocratic, snobbish, and destructive to school harmony. The discord over sororities reached such a peak that Gildersleeve appointed an ad hoc committee of students, faculty, and alumnae to review the issue. The committee ultimately voted to prohibit sororities permanently.

In addition to sororities, the Christian Association also dominated student life. Any Barnard student could join, but—despite the fact that Jewish students made up an



ever-growing part of the student body—Jews and Catholics could only be associate members. The Christian Association permeated campus life: It welcomed new students, advised students on campus activities, gave weekly teas, and presumed to represent the views and desires of the entire student body. In 1908, Catholic students broke with the Christian Association, forming the Catholic-only Craigie Club. In 1912, the Christian Association agreed to affiliate itself with the national YWCA. This new partnership required all members to pledge themselves to Jesus Christ, which clearly forced Jews out of the organization. In response to this, Barnard created an umbrella organization, Religious and Social Organizations. In this group were the Newman Club for Catholics, the YWCA, and ultimately the Menorah Club for Jews.

This initial marginalization of the sizeable Jewish population foreshadowed what came to be known as the “Jewish Problem” of the 1920s. In 1914, Barnard charged only \$150 for tuition, compared to \$450 at Mount Holyoke, for example. This low tuition, coupled with the great influx of Eastern European Jews into New York City, meant that Barnard admitted many relatively poor Jewish women at the same time that other women’s colleges reported only one or two Jews in attendance. Since the newly arrived Eastern European Jews were more ethnically conscious, poorer, and were considered socially inferior to established New York Jews, their increased presence created a social tension which became increasingly evident. Gildersleeve wrote to Meyer (herself a Jew), “Many of our Jewish students have been charming and cultivated human beings. On the other hand, as you know, the intense ambition of the Jews for education has brought college girls from a lower social level than that of most of the non-Jewish students. Such girls have compared unfavorably in many instances with the bulk of the undergraduates.”

Although Barnard did not establish a Jewish quota (as did other colleges at this time), Gildersleeve pursued several more oblique strategies to minimize the number of Eastern European Jews at Barnard. Among the most important was the deliberate project Barnard embarked upon to attract Protestant students from across the country; another major project was the building of residence halls to encourage out-of-town (non-Jewish) students and to mitigate the particularly New York, urban nature of the student body. Both these efforts were largely successful, as the student body today includes students from 42 states and 40 countries.

The building of the dormitory Hewitt Hall in 1925 solidified Barnard’s identity as one of the elite women’s colleges. The hall, designed by McKim, Mead, and White, the architects of Columbia, made it possible for

one-third of the students to live on campus (today more than 90 percent of Barnard students live in residence halls). In 1926, Gildersleeve further solidified Barnard’s position as an elite women’s college by helping to organize the Seven College Conference. Out of this conference of the presidents of east coast women’s colleges (Barnard, Bryn Mawr, Mount Holyoke, Radcliffe, Smith, Vassar, and Wellesley) was created a united appeal for seeking donors to ensure support for women’s colleges. The conference also gave rise to the name the “Seven Sisters” to describe these schools, a name which has come to signify social and academic prestige.

Barnard has continued to find new ways to provide an excellent education for women. In 1971, the Barnard Center for Research on Women, a research institute and resource center, was established. In 1988, Barnard College and Columbia University renewed and restructured their relationship. Barnard remains an independent college for women with its own curriculum, faculty, admissions standards, graduation requirements, trustees, endowment, and campus. However, Barnard and Columbia allow their students open access to courses, facilities, and libraries at both schools. Barnard has also developed working relationships and joint programs with other educational institutions in the neighborhood such as the Manhattan School of Music, the Jewish Theological Seminary, the Juilliard School, and Teachers College.

Among Barnard’s more distinguished alumnae are the anthropologist Margaret Mead (1923), the former U.S. Ambassador to the United Nations Jeane J. Kirkpatrick (1948), choreographer Twyla Tharp (1963), and writers Zora Neale Hurston (1927) and Erica Jong (1963).

**Further Reading:** Alice Duer Miller and Susan Myers’ *Barnard College: The First Fifty Years* (New York: Columbia University Press, 1939) and Marian Churchill White’s *A History of Barnard College* (New York: Columbia University Press, 1954) provide detailed histories of Barnard’s founding and early history. *Alma Mater: Design and Experience in the Women’s Colleges from Their Nineteenth-Century Beginnings to the 1930s* (New York: Knopf, 1984) by Helen Lefkowitz Horowitz discusses Barnard in relationship to other women’s colleges. Historical background is also supplied by Frederick Paul Keppel’s *Columbia* (New York: Oxford University Press, 1914) and by a collection of the Annual Reports of Frederick A.P. Barnard, edited by William F. Russell, in volume 1 of *The Later Days of Old Columbia College, The Rise of a University* (New York: Columbia University Press, 1937).

—J.H. Carson

# BEIJING UNIVERSITY

## (Beijing, China)

<b>Location:</b>	Beijing University has been located since 1952 in the northeast of the Haidian District, in western suburban Beijing, near the Yuan Ming Gardens and the Summer Palace.
<b>Description:</b>	With 29 colleges and departments and 82 research institutes, the university enrolls approximately 18,600 students, employs more than 2,000 faculty, and has a library that holds 4.3 million volumes.
<b>Information:</b>	Beijing University Office of Information 1 Loudouqiao Hai Dian Beijing 100871 People's Republic of China 62554002 Fax 62564095

The founding of the Imperial University in June 1898 marked the introduction of modern education to China. The prevailing poor economic climate in the country and recent humiliating losses in the Sino-Japanese War of 1894 boosted reformers in their quest to introduce a modern, western-style educational system. This trend was represented by a move directed by Kang Youwei, Liang Qichao, and others, who were convinced that basic reforms in political, social, and economic systems, not just new technology, were really needed in order to enrich and strengthen their country. They attempted to reform the traditional Civil Service Examination System and the educational system in general based on western and Japanese models. The reform as envisioned by Liang Qichao, and expressed in a memorial by Li Dunfen, consisted of a network of schools set up at county, prefectural, and provincial levels to culminate at a university in Beijing. Initially, China's governing body agreed to the university only. What we now know as Beijing University, then, is essentially a manifestation of the advent of modernization resulting from the push by the Hundred Days' Reform Movement of 1898. It was the only reform to survive the reactionary coup by the Empress Dowager in September of the same year.

The university was initially located just east of the walls of the Forbidden City, in a quarter of Beijing known as *Ma shen miao* (The Temple of the God of Horses). Just as the name of the university would change, the site would change, several times. Since its founding, the uni-

versity experienced a number of rebirths, the first of which came in 1902, when the university reopened after closing following the ransacking of Beijing in the Boxer Uprising of 1900. When it reopened, it subsumed what was left of the old Interpreters' College or *Tongwen guan* into its School of Foreign Language, thereby adding five foreign language programs as well as basic sciences to the existing curriculum. Zhang Baixi was appointed minister of education and president of the Imperial University in January 1902. In order to supply necessary personnel promptly, a School of Officials and a Normal School were attached to the university for retraining currently employed government officials and degree-holders.

With the end of the Qing dynasty and the imperial system in 1911 came the new China and a new name for the University in Beijing. It was not until 1916, when Cai Yuanpei was appointed president, that Beijing University (Beida) initiated an identifiable educational program and set out to build a faculty of distinguished scholars. Inheriting an institution which had, at that time, a reputation as "The Gambler's Den," with faculty and students collectively known as "the Brothel Brigade," Cai demanded that the students achieve more than had been expected of them in the past. In his 1917 inaugural address he reminded the students of the "nature" of the university as a place to seek learning, not to get rich or pursue a bureaucratic appointment.

Cai became one of a number of intellectual leaders with a distinct revolutionary history. He earned the distinguished *jinshi* degree in 1890 and was a member of Hanlin Academy. He served as an education official in his native Zhejiang, then as a teacher and sponsor of radical schools and anti-Qing societies. He also joined the Revolutionary Alliance. He studied philosophy in Germany for three years and lived in France, where he established a work-study program for Chinese students. In 1912 he returned to China and was appointed the Chinese Minister of Education under Sun Yat-sen and Yuan Shikai. In that capacity he convened a National Provisional Educational Conference at which the delegates from all the provinces charted new policies and regulations in educational reform. They recognized the need for China to establish a well-articulated educational system that would reach all parts of the country and that would be brought up to modern standards.

As chancellor of Beijing University, Cai set to appointing faculty based not on political leaning but on intellectual excellence and academic achievement. Cai oversaw the introduction of graduate study in the humanities, sciences, social science, and law, beginning in 1918. Among the faculty hired at this time was Chen Hengzhe (Sophia H. Chen Zen) who joined the history faculty in 1920, mak-





*Beijing University*

ing Beida the first Chinese university to appoint a woman to a professorship. In the same year, Beida was first in admitting women to a previously all-male campus. Cai staunchly defended the right of the faculty and students to speak their beliefs, and in the wake of the protest which was the central activity of the May 4 Movement in 1919, he in turn protested the arrest of his students by resigning as chancellor of the university. He was reappointed later that year and remained chancellor until 1922.

In its formative thinking and revolutionary influences, Beijing University was critical in galvanizing the country, especially through students, in the May 4 Movement. The protest in Tiananmen Square by 3,000 university students from 13 area colleges and universities was in direct response to the results at the Versailles conference of the settlement of Germany's Shandong rights to Japan. The protest resulted in China's not signing the treaty. The organizers of the movement settled on a series of resolutions to draw attention to the poor treatment of China by Japan and the west. In addition to the protest, another resolution passed by the students called for the implementation of a Peking Student Union that included women,

which influenced similar organizations at other major institutions and ultimately resulted in a Student Union of the Republic of China.

The environment of intellectual and institutional challenge that has characterized Beijing University since 1916 explains how it came to be at the heart of what has become known as the New Culture Movement. May 4 subsequently became the anniversary date for the celebration of the founding of Beida in yet another of the university's rebirths. In 1927 Chiang Kai-shek attempted to rally the forces in the country to emerge from the political chaos of the previous decades with a relatively unified state. Part of his vision included a unified, nationalized higher education system, with the universities following a required national curriculum under the supervision of the Ministry of Education. Beijing University's tumultuous first decades were followed in the early 1930s by a period of relative calm and focused learning.

Wen Xin Ye wrote about student life and the austere sensibility that separated the students at Beida from those of other universities. The construction of a four-story dormitory and the controversy it provoked was described in



Ye; the new dorm had 8 separate entrances and 30 self-contained single rooms, and it was the first housing unit with modern sanitary facilities and hot running water. Ye writes, "As a metaphor for its social place in the university, this modern construction stood alone in an open area at some remove from the rest of the buildings." The senior class, which was granted priority housing, strongly objected that the student body would likely fund those nonessential modern conveniences. One senior named Li Ji, Ye reports, was a self-styled "poor scholar" who later became known as a socialist thinker. He insisted that the extra expenses for the modern facilities of the new dorm would completely upset his precariously balanced budget.

The Japanese, whose presence had been steadily growing larger and ever more overbearing, finally declared war on China in 1937. This forced the issue of whether the students would serve the country better by joining the military to defend the country or continuing their studies to better prepare an already economically endangered country to rebound after the devastation of war. By that time the academic community had resolved that continuing to build education for the country was essential to China's future. Many of the leading institutions chose to relocate to the interior. In his article "The Growth of the Academic Community 1912–1949," Et-tu Zen Sun refers to the overwhelming complexities required in this action, including various planning stages for the move, negotiating for quarters in the new location, the financing and logistics of moving faculty, students, staff, books, and equipment. All of it was accomplished within the first year of the war, simultaneously introducing modern education into more remote areas of the country. Beijing University, together with Nankai and Qinghua Universities, formed first the temporary university of Changsha, Hunan, then from late 1938, the National South-West Associated University in Kunming, Yunnan. Sun describes the arduous trek from the temporary quarters at Changsha to Kunming in the autumn of 1938: "Some 300 students, accompanied by a few professors, had marched overland in two months from Changsha, a distance of about 1,000 miles, while a much larger contingent arrived by ship and rail through Hong Kong and the Yunnan–Indo-China Railway."

Civil unrest and uncertainty returned once again when the Nationalists (the Kuomintang or KMT) and the Chinese Communist Party, who had united forces against Japan, returned to their own conflict immediately after the end of the war of resistance. By 1946, the universities returned to their original locations and began to reopen. The academic community, especially at Beida, had always remained some distance from the political world. But the intellectual leaders among students and faculty alike were grounded and experienced in revolution and protest. This, coupled with the popularity of Marxism at the university, boosted the support of the Communist Party in its campaign to overthrow the KMT.

A key political event was the rape of a Beida female

student by two American Marines. The incident became a cause célèbre involving issues of perceived western domination engendered by the United States and the association of the KMT with the United States, which had become a formidable presence in China. In *China and the Christian Colleges, 1850–1950*, Jessie Gregory Lutz relates that editorials in China's newspapers of the time reveal that the United States was in one way or another responsible for a variety of thoughtless accidents and injuries, such as jeeps running down pedestrians or rickshaw men and brawls involving drunken servicemen. Lutz believes this event reveals the power of the students to make themselves and their outrage heard.

The National Student Union of China and its regional federations, especially the North China Student Union and the union encompassing the Shanghai, Nanjing, Hangzhou, and Suzhou area were part of an extremely powerful network of student associations, however illegal. Lutz describes the power they yielded in controlling all extracurricular activities at many universities, especially the largest: "according to one report on Beida, the drama clubs, glee clubs, wall newspaper societies, and other organizations were expected to coordinate their actions with those of the student government associations and contribute their talents and energies to protest demonstrations." All energies at this time focused on a campaign of protests all over the country in the spring of 1948. Strikingly similar manifestos were passed by students in a variety of major cities on May 4. The major issue was United States aid to Japan, which, Lutz believes really represented an attack on the U.S.-supported Kuomintang government.

In 1949 the Communist Party assumed control of the Chinese government. The process of nationalization of higher education begun by Chiang Kai-shek in 1927 was substantially strengthened with the birth of the People's Republic of China. Institutional reorganization, beginning in earnest with the start of the first Five-Year Plan in 1952, illustrated the new government's interest in promoting the development of experts in the technical fields. The economic crisis in China required a campaign of national reconstruction that called for the training of a vast labor force with scientific and technical skills, which would focus on the importance of serving the people and would work to attain a high cultural level within the Marxian ideology. The reorganized universities curricula consisted of short-term courses; highly specialized and narrowly defined majors; scientific and technical programs; and texts, scientific theories, and pedagogical techniques from the USSR that displaced western models. The universities were completely reorganized. Beida experienced still another move: its new home was the property of Yenching University, which was completely dissolved and some of its departments distributed among other local universities. Beijing National University became the comprehensive university in Beijing. Qinghua's colleges of arts, science, and law and Yenching's liberal arts program were absorbed by Beida. Beida's engi-

neering college, along with the science and engineering schools of Yenching, moved to Qinghua University, which became an advanced polytechnic school.

The Soviet Union remained the undisputed model in higher education through the mid-1950s. Soviet advisers and educational materials equipped the educational institutions that were revamped in an effort to duplicate the Soviet educational system. Then, in 1957, in response to the call by Lu Dingyi, the director of the Bureau of Propaganda, to “let a hundred flowers bloom . . . and a hundred schools of thought contend,” the Hundred Flowers campaign was launched. Intellectuals accepted encouragement by Mao Zedong and the (however reluctant) Chinese Communist Party to air their grievances, which they did with a forcefulness that surprised and dismayed the Party. On May 19, 1957, a group at Beijing University put up a “Democratic Wall” plastered with “big character” (*dazi bao*) statements attacking the Party’s control and mistreatment of the intellectuals. Other complaints included the slavish following of the Soviet model for education, the poor quality of life in the country, and corruption among party cadres. The disgruntled party secretaries began their retaliation in June 1957. By the end of the year, over 300,000 intellectuals were branded “rightists,” which effectively ruined their careers in China. Many were sent to labor camps or to jail, others to the countryside for an education in working the land, an education that in some cases turned into a lifetime exile.

Immediately following the backlash of the Hundred Flowers campaign was the Great Leap Forward. This was Mao’s intensive nationalization effort to strictly rally and promote the productivity and capability of China’s masses. This effort prescribed a massive reorganization of the population into communes and collectives, with the intention of involving every single citizen. Part of the Great Leap Educational Revolution was intended to democratize the university enrollment policy. Universities and colleges were attacked by Mao as elitist and irrelevant to national needs. Education was to be combined with productive labor, administration was decentralized, and students were selected not only on the basis of their examination results but on preferential treatment according to the class line. Ruth Hayhoe tell us in *Contemporary Chinese Education* that Mao “did not succeed in a long-lasting revolution in education, and from 1961 those political factions favoring traditional academic standards got the upper hand in organizing teaching and research and, most importantly, the enrollment system in favor of ‘academic achievement’ at the expense of ‘political commitment.’” An initial impact of the start of the Cultural Revolution on universities was that the originally intended half-year delay in enrollment of students in 1966 to implement the “Reform of Entrance Examinations and Enrollment in Higher Educational Institutions,” stretched into five years before the universities were prepared to resume enrollment.

When universities were once again prepared to admit students, the process was drastically different. The entrance examination system was replaced by a program of work group quotas. Slots were filled based on nominations by peasant and worker committees based on an individual candidate’s political enthusiasm and the individual’s family background of revolutionary experience. The resulting system was often corrupt—students entering by the “back door”—and the overall quality of student ability was poor.

In March 1978 at the National Science Conference in Beijing, Deng Xiaoping unveiled a modernization plan that would include a “crash training program” to achieve development in the specialized areas of science and technology. This led to the design of the system of 88 “key universities” with admission only by rigorous competitive examinations.

True to its self-proclaimed “glorious revolutionary tradition,” Beida’s students headed the movement that led to the massive protest and standoff in Tiananmen Square in June 1989. The 1989 protest was the culmination of long-standing student dissatisfaction with political and academic control and Communist Party-imposed limitations on the students. The restrictions included clamping down on Beijing University students’ use of the Democracy Wall. First used to criticize the ruling KMT party in the Republican years, the Democracy Wall was a device that seemed to enjoy covert government support until the appearance, beginning in the late 1970s, of a more threatening student movement that criticized Marxism and the Communist Party and called for greater democracy and human rights. The government summarily silenced and imprisoned the leaders of the movement. Students were repeatedly prohibited from taking part in local people’s elections. Through the 1980s all over China, students demonstrated in protest of various grievances. In addition to their complaint about party intervention in elections and in university activities, students demonstrated against the presence of military and industrial units, and against poor food, housing, and academic conditions. The occurrence and force of the protests escalated, becoming ever more politically based, with nationwide student demonstrations in 1985, 1986–87, and finally, coming together in 1989.

**Further Reading:** General information on Chinese universities in English is hard to come by, and writings on specific universities are even rarer. Ruth Hayhoe’s work, *China’s Universities, 1895–1995: A Century of Cultural Conflict* (New York: Garland, 1996), *Contemporary Chinese Education* (Armonk, New York: M.E. Sharpe, 1984), and other works are good overviews of Chinese higher education.



# BOSTON UNIVERSITY

## (Boston, Massachusetts, U.S.A.)

<b>Location:</b>	In the Back Bay area of Boston.
<b>Description:</b>	One of the largest independent universities in the country with 28,600 students in undergraduate, graduate, and professional programs.
<b>Information:</b>	Office of Admission 121 Bay State Road Boston, MA 02215 U.S.A. (617) 353-2318
<b>Visiting:</b>	Guided tours are available year-round. For more information, call the phone number above.

When the institution known today as Boston University was founded as a Methodist school of theology in 1839, it was neither a university nor located in Boston. It was not even in Massachusetts. The idea of an institution to train clergymen conflicted with a popular image of a minister being a man of God chosen to the calling rather than formally schooled. Yet John Wesley, founder of Methodism, was a graduate of Oxford University and saw his mission as one of education as well as of the study of theology.

Perhaps with that in mind, three Bostonian members of the Methodist Episcopal Church (Lee Claflin, Isaac Rich, and Jacob Sleeper) called a convocation at the Bromfield Street Methodist Church to explore ways to improve theological education at the centennial of English and American Methodism.

Preferring a rural location for the new school, the founders chose to share the Newbury (Vermont) Seminary building as the first home for their Newbury Biblical Institute. Newbury Seminary had been accepting women (including a black woman) as students, setting an example that was embraced by its new neighbor. Another precedent, established at the beginning and carried through for the institution's first century, was the adaptive reuse of existing buildings rather than relying on new construction.

Within a decade, the original building was overcrowded and the Newbury Biblical Institute was moved in 1847 to a former Congregational church building in Concord, New Hampshire—where it was renamed the Methodist General Biblical Institute. As in Vermont, the students cut firewood and did other farm work in their spare time to help defray their expenses. The school body

had grown considerably by the time of the Civil War and was able to endure through that conflict, although in reduced circumstances. Moving to Boston in 1866, the school was renamed Boston Theological Seminary, bought land in Brookline for a campus, and rented buildings on Beacon Hill—meant to provide temporary quarters but was to be used for nearly a century.

The school's rapid expansion was supported by the three businessmen/philanthropists: Claflin, Rich, and Sleeper. Although all three were Methodists, they insisted that the original charter provide an assurance of nonsectarian admission (excepting the school of theology).

Boston University was born in 1869 with a petition to the Massachusetts legislature for the incorporation of a European-style university, with undergraduate, graduate, and professional schools under the same administration. From its earliest days, the university followed a nonsexist, nonracist policy. Men and women were admitted on an equal basis. Boston University was the first institution in Massachusetts to grant degrees to women, and it awarded the first Massachusetts woman with a Ph.D. The first woman to pass the Massachusetts bar was a BU graduate.

Early BU students were likely to be working their way through college. There were no dormitories and most students lived with their families, although some did stay in boardinghouses. With students reaching classes by horse-drawn trams, trains, and later electric cars from the far suburbs and beyond, BU was a commuter school for much of its history. Boston was an industrial city—textiles, leather, shoes, shipping—filled with working-class citizens for whom Harvard was out of reach. But the transplanted school on Beacon Hill was not.

Only two American institutions in the wake of the Civil War provided all four regular university faculties (liberal arts, divinity, law, and medicine): Harvard and Yale. The evolving Boston University was the third.

Although it had found its permanent location in Boston, the university was not to have its own campus until the middle of the twentieth century. The university used classrooms that had been vacated by Massachusetts Institute of Technology and other existing schools.

Except for a quirk of fate, BU would have had its own home much sooner. Founder Isaac Rich died in 1872, leaving most of his fortune to the university. (There was some thought of naming the university after him, but it was feared that the name "Rich University" would put off later donors.) The estate was comprised mostly of prime Boston real estate valued at \$1 million. At that time, Rich's legacy was the largest ever given by one American





*Boston University*

for higher education. Rich's gift stipulated that the funds be placed in trust for ten years before disbursement. But all went up in smoke—literally—a few months after Rich's death, in the great Boston fire of November 1872. With a subsequent depression, the property had fallen in value by half by the time BU was able to claim the principle in 1882. The new campus had to wait once more.

The university stayed in its second-hand buildings on Beacon Hill and elsewhere in Boston. The research that went on there, however, was far from second rate. To Boston University came a Scottish immigrant who taught the deaf to communicate. He had some other ideas he wanted to pursue, so BU's first president, William Fairfield Warren granted the young teacher not only the time off to research but also paid him a year's salary in advance—a practice virtually unknown of in those days.

Thus was Alexander Graham Bell freed to work on his invention and it was from his BU laboratory that the first voice transmission over telephone wires took place in 1876. Although Bell was not a faculty member for a long period of time, he afterward said it was BU's generosity that made his invention possible.

Borden Parker Bowne was BU's most famous professor in the late 1800s, well known as the developer of the philosophical school called Personalism (a doctrine which holds that ultimate reality consists of a plurality of spiritual beings or independent persons). His influence extended over half a century, when Professor Edgar Brightman became the leading Personalist in the era between the two world wars.

In branching out to medical education, BU was at first affiliated with the homeopathic New England Female

Medical College, which had graduated the first African-American physician, Rebecca Lee, in 1864. When the Female Medical College went bankrupt in 1871, the Boston University School of Medicine (BUSM) took over the institution in the city's South End, where the campus remains today. Boston University School of Medicine was the first university in the United States to provide a three-year medical curriculum with lectures, laboratory, and clinical work. Again, men and women were admitted equally. In 1897, Dr. Solomon Carter Fuller was graduated, the first African-American psychiatrist in the country.

The College of Liberal Arts (CLA) was launched at BU in 1873, still in "recycled" buildings on Beacon Hill. With Rich's legacy, half of the student body received full tuition scholarships—equally divided between men and women. The CLA chose as their colors red and white, symbolizing equality between the sexes, colors eventually adopted for the entire university.

By 1906 most of the CLA students were women in teacher training; nearly 85 percent of the student body was female. Some other schools, fearing that men would not enroll in a predominately women's college, limited the female population. Instead of limiting women, Boston University increased the number of male students with the "More Men Movement" of 1910. The advent of the College of Business Administration (thought to be a "male" school), as well as evening courses and weekend classes, all made possible the matriculation of additional male students. The College of Liberal Arts, though, remained heavily female until after World War I.

In 1921 the first women's dormitories were opened along Bay State Road at the site of what became the Boston University campus. Still, most students were commuters—an ethnically diverse group that saw a waning of Methodist influence with increasing numbers of Catholics, Jews, and others.

The unified campus, planned for decades, was still no closer to reality than it had been in the ashes of Boston half a century before. The university dreamed of a Charles River campus, like those of its neighbors Harvard and MIT on the opposite bank of the Charles in Cambridge. In 1920 BU bought almost all the land between Commonwealth Avenue and Bay State Road along the banks of the Charles River. In the late 1920s, the riverbank portion of the proposed campus was taken by eminent domain for the construction of Storrow Drive. Boston University was forever after cut off from the riverbank by a busy highway—turning its back on the water and toward the trolleys that brought its students to class.

Enrollment dropped during the Great Depression at BU as elsewhere, but some students continued to work their way through college as doormen, models, restaurant staff, elevator operators, and such. Faculty salaries were cut nearly 20 percent over the course of the 1930s, but the university was still able to start an aeronautical engineer-

ing department to train engineers and pilots using facilities at Logan Airport.

In the late 1930s BU was forced out of its College of Business Administration building when it was sold; despite the troubled economy, it was forced to embark on a year-long campaign to raise money for the Charles River campus. With lowered property values, BU was able to purchase the Weld mansion at 147 Bay State Road, former home to wealthy surgeon William Weld, whose art collection is now in the Museum of Fine Arts in Boston. The mansion has gone through several uses over the years and is now the president's office.

World War II brought to Boston University an Army Specialized Training Program for GIs who studied academic and military topics in a grueling program. Of the non-military students, fewer worked part-time during the war, preferring to take advantage of accelerated programs to finish their studies more quickly. When the war ended, returning men and women veterans eligible for the GI Bill created an influx of students. The Depression had begun to swing BU away from being a commuter school to a university with a larger resident population. In the postwar era, GIs who had had a taste of travel did not want to stay at home for college. Boston University began to acquire residences to meet the needs of these men and women.

In the postwar era the General College was created to accommodate students who were unable to meet the normal entrance requirements but who showed potential for college work after remediation. Public relations, nursing, engineering, and technology (including aerospace and optics) were all fields that were enhanced after the war.

Boston University's traditional nondiscriminatory policy brought more ethnic minorities as the Civil Rights movement began. With one of the earliest interdisciplinary African studies programs in the United States, and with the rising population of foreign students, BU was becoming a melting pot. Popular African-American preacher Howard Thurman was lured to BU to head Marsh Chapel, revitalizing the congregation and increasing the racial diversity. Barbara Jordan, later congresswoman from Texas, was a regular worshipper at Marsh Chapel while a student at the law school in the late 1950s. Martin Luther King Jr. was drawn to Boston University by the philosophy of Personalism in which King found confirmation of his long-held beliefs.

In the late 1940s Sarah Caldwell, who had directed BU opera workshops, became the first woman to conduct the Metropolitan Opera. In 1957 she founded the Opera Group of Boston, now the Opera Company of Boston. She remained on the BU faculty until 1960. Boston Pops conductor Arthur Fiedler and eminent Boston theater critic Eliot Norton were also on the faculty.

It was a rare college campus that was tranquil in the turbulent 1960s, and Boston University was no stranger to turmoil. Students were very politically active in the second half of that decade, often abetted by BU newspa-



per editor Raymond Mungo, who was a national leader in the move to impeach President Lyndon Johnson. Other popular protest causes in that era were the Vietnam War in general, Civil Rights, campus ROTC, and military-related research. Boston University was dubbed "Berkeley East" as drug and alcohol use rose. Campus unrest marred the centennial celebrations in 1969 with walk-outs, sit-ins, and other protests.

Boston University struggled to cope with student unrest, the drop in the number of commuter students (a result of the low tuition at the new Boston campus of the University of Massachusetts and the growth of community colleges), an inadequate endowment, and a growing annual deficit. With BU on the brink of bankruptcy, President Arland Christ-Janer abruptly resigned and the search was on, as one writer suggested, for a "silver unicorn" to head the institution.

John Silber, the fired College of Liberal Arts dean from the University of Texas at Austin, was hired to shake up BU. When he arrived in Boston, Silber realized how precarious the financial situation was. Instituting a strong core curriculum that flew in the face of the trend away from course requirements, Silber hired several renowned faculty members from MIT, Harvard, the London School of Economics, and other star institutions. With a strong (some would say autocratic) style, Silber weeded out the faculty at BU, urging some he perceived as weaker to switch to schools where they would be able to shine more brightly. Within five years, BU was in the black, with doubled grants from government and corporations. Silber's confrontational style led to clashes with faculty and students, while he balanced the budget, increased the endowment enormously, successfully fought an attempt to unionize the faculty, and continued to expand the university.

In the mid-1980s Silber engineered the takeover of the Chelsea, Massachusetts public schools by BU for a ten-year period in an attempt to reform the struggling system. Teaching ethics and character along with the traditional curriculum, the experiment's first years saw some improvements, but Chelsea's schools were not fully revitalized.

Part of the basis for the improved financial situation came through commercially successful research, including gene study, that led to scandal and an investigation of grants and bonuses paid to Silber (later returned) and to other faculty. However, according to the regulators, no laws were broken.

Another controversy revolved around Martin Luther King Jr.'s donation of his personal papers to BU. After his assassination, his widow asked for the return of the papers in order to deposit them at the King Memorial Center in Atlanta. In a protracted lawsuit the university

won the right to keep the papers, which are deposited in the Mugar Library.

The Mugar Library's Twentieth Century Archives is the repository of some of the papers of some 1,600 luminaries from all walks of life. A small sampling: from the world of music, Sir Rudolf Bing and Ella Fitzgerald; from theater and film Fred Astaire, Douglas Fairbanks Jr., Angela Lansbury, Robert Redford, Edward G. Robinson, George Bernard Shaw, and Orson Welles; from the world of letters, Sylvia Ashton-Warner, Isaac Asimov, Peter Benchley, Nathaniel Benchley, Robert Benchley, James T. Farrell, Rumer Godden, Sue Grafton, David Halberstam, Reginald Hill, Langston Hughes, D.H. Lawrence, Mary Renault, May Sarton, Siegfried Sassoon, H.G. Wells, and Elie Wiesel; media figures Alistair Cooke and Dan Rather; and Cardinal Richard Cushing and former Speaker of the House John W. McCormack.

So high was the visibility of BU by the year of its sesquicentennial, 1989, that several world leaders participated in the celebration. King Hussein of Jordan appeared in April to speak and receive an honorary degree. At the May commencement, both François Mitterand, president of France, and George Bush, president of the United States, spoke and received honorary degrees. Chancellor Helmut Kohl of Germany accepted an honorary degree in his own country.

Boston University in the 1990s is a strong educational institution, with a faculty that includes Nobelist Elie Wiesel and Derek Walcott; Pulitzer Prize-winner Robert V. Bruce (history); National Book Award biographer Roger Shattuck; and opera diva Phyllis Curtin. Among the long-term faculty at the BUSM was the late Isaac Asimov, prolific author and winner of several science fiction and literary awards. For three decades BU has spearheaded the seminal Framingham Heart Study of lifestyle effects and risk factors on cardiovascular health.

**Further Reading:** Kathleen Kilgore's *Transformations: A History of Boston University* (Boston: Boston University, 1991) is a lively, readable history published just after the university's 150th anniversary. Edward Ray Speare's *Interesting Happenings in Boston University's History, 1839 to 1951* (Boston: Boston University Press, 1957) is an uncritical paean by the son of an associate founder who, with his father, was connected with BU for most of its first century. Speare focuses on events and leadership up to the 1950s. *American University Education in the Birth-Year of Boston University* (Boston: Boston University, 1913) by first BU president William Fairfield Warren compares the birth of BU to the origins of existing colleges such as Yale and neighboring Harvard.

—Jeanne Munn Bracken



# BRANDEIS UNIVERSITY

## (Waltham, Massachusetts, U.S.A.)

<b>Location:</b>	In suburban Boston, nine miles west of downtown. The university occupies 95 buildings on a wooded 235 acres. It is accessible by commuter train from Boston and Cambridge, by the MBTA subway system, and by automobile from the intersection of Routes 128 and 95.
<b>Description:</b>	Brandeis is a private, nonsectarian, coeducational university. Combining the flavor of a small liberal-arts center with the facilities of a major research university, it has 3,000 undergraduates and 1,000 graduate students.
<b>Information:</b>	Brandeis University P.O. Box 9110 415 South Street Waltham, MA 02254 U.S.A. (617) 736-3500 (800) 622-0622
<b>Visiting:</b>	Student guides lead tours Monday through Friday at 10:00 A.M., 11:00 A.M., 1:00 P.M., and 3:00 P.M. when classes are in session. For more information, contact the Office of Admissions at the above address.

Since the mid-nineteenth century, Jewish leaders had debated the merits of a Jewish-sponsored university in America. Their vision revealed a desire by the Jewish community to add a "Jewish cultural expression" to American society, but it also was a practical response to prevalent anti-Semitism in American higher education. Agitation for such an institution increased after World War I, but financial and logistical roadblocks hampered the concept's fruition until early 1946, when the opportunity to fulfill this "aspiration of a century" materialized in unexpected fashion.

Middlesex University, a small college in Waltham, Massachusetts, boasted a student body that was 75 percent Jewish, ■ result of its rare quota-free admissions policy. Always struggling, the school ran into financial hardship after the death of its founder in 1944. Two years later, bankruptcy loomed. Middlesex's president, cognizant of some Jewish leaders' increasing desire to initiate a university, contacted Dr. Israel Goldstein. An influential New York rabbi, Goldstein had been actively exploring

the idea of establishing a Jewish-sponsored college for several years. Middlesex's president offered to transfer title for the university to a committee Goldstein had named. This committee of prominent New York Jews assumed Middlesex's financial obligations, established ■ board of directors, and set up a charter. The reality of a Jewish-sponsored university had begun.

Goldstein's committee immediately left its mark on the school by changing its name to honor the late U.S. Supreme Court Justice Louis D. Brandeis. The first Jewish justice, Brandeis was known as a peoples' lawyer, whose advocacy of social causes was well known. Goldstein's committee agreed that Louis Brandeis, a minority voice philosophically, was a worthy namesake for this endeavor and a powerful expression of Jewish pride.

Many Jewish leaders initially endorsed the project and, through donations, many in the Jewish community expressed their enthusiasm for the school after its long theoretical gestation. Albert Einstein lent his name to fundraising efforts and boasted that Brandeis University "will satisfy a real need." But fundraising quickly dried up as well-publicized personal differences enveloped Goldstein's board. By the fall of 1946, the project faltered as Goldstein and his committee resigned, and Einstein withdrew his support for Brandeis University.

Boston lawyer George Alpert stabilized the project by organizing a new committee. While financial and moral support from prominent members of the Jewish community had evaporated, this group of Boston entrepreneurs finally secured sufficient financing to rescue the school in December 1947.

With funding stable, the new committee then sought to avoid crippling interpersonal debates by actively recruiting Abram Sachar to be Brandeis University's first president. Sachar was the Hillel Foundation's first national director, a post which he held for 20 years. Sachar understood the needs of the Jewish community and was eager to participate in the debate over a Jewish-sponsored university. To the trustees, almost all of whom were inexperienced in college administration, Sachar represented an organizing force; the board gave him a free hand in the school's academic operations.

Sachar saw special symbolic significance in a Jewish-sponsored university. By making this commitment to American society, American Jews could contribute to the nation's welfare, thus fulfilling what many Jews regarded as their duty. These lofty aspirations compelled Sachar to carefully consider the university's organization. To heighten its symbolic significance, Brandeis University should be nonsectarian. Sachar—



*Brandeis University*

like many other American Jewish scholars—believed the university should not function as a haven for Jews excluded from American higher education. Thus, students of all faiths should be admitted on a merit basis. Nonetheless, Brandeis University was destined to have a close relationship with the American Jewish community, and Sachar thought the school's curriculum should reflect this unusual position in American higher education. Accordingly, Sachar specified that Brandeis include Judaic studies in its curriculum and, where possible, commit resources to address the nation's social problems.

Sachar and the trustees faced the challenge of developing a curriculum, selecting a faculty, and drastically renovating the existing campus. These tasks would have to be completed without the substantial endowments on which established universities relied and with the prospect of contributions from financially successful alumni nearly two decades away. The financial challenges presented by an absence of tradition were overcome by aggressive fundraising. In Brandeis's first years, the economic support of upper-class Jews was still withheld. But the response was substantial. Indeed, many of Brandeis's early needs were met by amassing extremely small donations.

Brandeis had started classes with a faculty of 13 but rapidly built its faculty by aggressively recruiting young academics selected for their potential scholarly contributions. Sachar balanced these youths—many were only in their twenties—by convincing a few accomplished professors to leave retirement. Sachar also personally recruited noted European academics, especially those displaced by World War II. By the early 1950s the school's increasing reputation and funding prompted prominent scholars in all fields to join the faculty. An endowment by a Jewish organization allowed the recruitment of noted ivy-league visiting professors, thus further bolstering the young school's reputation.

Sachar recruited the *crème de la crème* of scholars. Among the music department's earliest offerings was a course in modern music given by Leonard Bernstein. French scholar Albert Guerard, novelist Ludwig Lewisohn, and psychologist Abraham Maslow were also among the university's earliest professors. Visiting scholars included Eleanor Roosevelt and social critic Max Lerner. Continuing that tradition in recent years, visiting scholars, lecturers, and professors included Sumner Redstone, CEO of Viacom International; composer Marvin Hamlisch; authors Geoffrey Wolff, Toni Morrison, and Jayne Ann Phillips; Israeli parliament member and former refusenik Natan Sharansky; and Nobel laureates Bert Sakmann and Roald Hoffman.

Many Jews who had shied away amid the controversy of Brandeis's first years gradually returned with financial assistance by 1950. Their support increased throughout the 1950s, and grew to substantial proportions in the next decade. Also, by the mid-1950s fund-

raising efforts successfully expanded outside the Jewish community. Nonetheless, Brandeis remained hampered by the lack of a substantial endowment enjoyed by established universities.

This funding spurred the school's rapid growth in the two decades after its founding. The university completed a costly architectural master plan within one decade. Simultaneously, Brandeis purchased adjacent acreage and initiated a campus beautification project. By 1968 Brandeis University had been completely transformed; its campus encompassed over 90 buildings on 235 acres, representing an investment of over \$70 million. Usen castle is all that remains of the old Middlesex school, and it still hosts the campus coffeehouse as well as dormitory rooms. Most of the rest of the campus buildings are modern in style. There are nine residential quadrangles, and all of the residential halls are networked into the university computer system. The master plan of the campus was designed by architect Eero Saarinen. The Catholic, Protestant, and Jewish chapels were designed in such a way that the shadow of one would never fall on another, symbolizing religious freedom and tolerance.

Before Brandeis's charter class of 107 students matriculated in the fall of 1948, Sachar had faced a challenge in starting a curriculum from scratch, although this lack of tradition allowed conceptual flexibility. Sachar, wanting to keep the nascent program as manageable as possible, decided to concentrate on liberal arts and limit the size of the student body. Sachar acknowledged the "formative influence" of Brandeis's first curriculum was the innovative Harvard Plan of 1946. This concept recommended a core curriculum in humanities and social and natural sciences through a student's first two years. Then, the student would choose a concentration. Brandeis required all students to take fine arts, subjects shunned by most major universities at the time. Also, Brandeis University emphasized the social utility of its curriculum.

Brandeis strove to combine the intimacy of a small liberal arts college with the facilities, faculty, and depth of a world-class research institution. Undergraduates always had access to a faculty of renowned scholars, and were often invited to participate in ground-breaking research. Interdisciplinary studies were encouraged from the onset. Examples of these fields included journalism, film studies, legal studies, and medieval studies, among others. Many students work as interns in a variety of fields in the Boston area. In addition to filling requirements for a concentration, all undergraduates take one university seminar in humanistic inquiry as well as three cluster courses. The clusters are groups of courses from different departments and schools that explore one theme or period. A cluster on conflict and cooperation, for example, could include courses from anthropology, politics, and English literature departments. A cluster on the Baroque could include courses from departments including music, history, theater, fine arts, and comparative literature.



The university's noted faculty and sound academic program earned the school accreditation by the New England Association of Colleges at the earliest opportunity in 1953. The school's academic reputation continued to grow in the 1950s and 1960s as many of its graduates entered the nation's best graduate and professional schools in disproportionate numbers. Phi Beta Kappa accreditation was conferred in a record 13 years in 1961.

Even before its first class graduated, Brandeis began making a significant contribution in the arts. Brandeis hosted annual classical, jazz, dance, art, film, and poetry festivals and recruited notable faculty, such as Bernstein and Aaron Copland. By 1954 Brandeis had developed a series of endowments encouraging the arts. Not surprisingly, the school's first graduate program was in music. In 1980 Brandeis hired a string quartet in residence. The Lydian String Quartet invigorated the music department. Members of the quartet taught private lessons, gave regular concerts on campus, and led a summer chamber music workshop for musicians, both professional and fine amateurs, from around the country. The quartet performed often in Boston and the surrounding area and participated in a variety of summer music festivals. They were the winners of a Naumburg award in chamber music performance.

In a similar time frame, Brandeis stimulated interest in communal service. In 1959, the university established the centerpiece of this effort, the Florence Heller Graduate School for Advanced Studies in Social Welfare. A professional school for the human services field, the Heller School has grown into a national center for the research of health and welfare issues. In 1964, Brandeis founded the Lemberg Institute for the Study of Violence. This institute explored the social and economic causes of escalating violence in 1960s America.

Brandeis's emphasis on Judaic studies also sprung from its sponsorship. The Jewish studies department began with three highly accomplished European scholars. In 1966 the American Jewish Historical Society relocated its headquarters to Brandeis, beginning a 30-year relationship with the university. The society's archives comprise the world's largest collection of American Judaica. The Lown School of Near Eastern and Judaic Studies remains one of the most significant centers for Judaic research outside Israel.

By the early 1950s, Brandeis had broadened its early emphasis on liberal arts to stress scientific inquiry. The school quickly grew into a significant research university. A 1990 Science Watch study listed Brandeis as the nation's seventh most significant research school in the biological sciences. Volen National Center for Complex Systems was dedicated in the early 1990s. The center connected five of the existing science buildings, and brought faculty together from seven scientific programs: biology, biochemistry, chemistry, computer science, psychology, linguistics and cognitive science, and physics.

The goal of the center was to examine large complex systems, such as the brain and intelligence. The center enabled professors and students from different fields to combine their efforts to create ground-breaking discoveries about the brain, language development, and such ailments as schizophrenia and Alzheimer's disease. New graduate students were drawn to the university because of the center, and a new interdisciplinary major in neuroscience was established. An acclaimed 1997 study on research universities named Brandeis the nation's top rising private research university. Noting Brandeis's youth, the study's author observed, "There's been no institution like it, for its size, that was almost an instant, powerful research institution."

Interestingly, Brandeis's glowing start and its accomplishments were interrupted by a period of decline. Abram Sachar retired in 1968, and a quick succession of presidents proved unable to sustain Sachar's vision or cope with the school's new problems. Many of the school's original faculty had retired by 1970; those remaining expressed discontent over the school's academic decline. Hostility between the faculty and the school's presidents increased. Additionally, the school's financial situation, never strong, worsened, as donations decreased, and Brandeis's lack of a substantial endowment continued to haunt the school. By 1980, the university was running a deficit of \$2 million; administrators predicted this figure would sextuple in just five years.

In the 1980s President Evelyn E. Handler initiated a "Blueprint for Renewal" to arrest the school's financial decline. Her blueprint called for an increase in the number of undergraduates, a slight decrease in the number of faculty, and a broadening of the university by adding undergraduate programs and a graduate school of business. Simultaneously, Handler attempted to diversify the student body in an effort to attract greater funding, a strategy reflecting prevailing trends in American higher education.

Many faculty, administrators, and students viewed Handler's efforts as an assault on the school's traditional identity as a small, research university. Causing particular furor were Handler's attempts to secularize Brandeis. Her critics, including Sachar, lambasted Handler's "de-Judaization" of the university. Although Handler improved Brandeis's physical plant and initiated a capital campaign which pulled in over \$170 million, she was pressured to resign in 1991.

After her departure, Handler's opponents reasserted their contention that nothing was fundamentally wrong with Brandeis; the school merely needed to reassert its unique niche in American higher education by building on the strengths it had defined in its brief, somewhat turbulent, history. The first step on Brandeis's road to recovery was the inauguration in 1991 of a new president. Dr. Samuel O. Thier became the university's sixth president and the driving force behind Brandeis's re-emergence as an up-and-coming university. Thier was a former professor at Harvard

Medical School and the Yale University School of Medicine. He spent several years as president of the Institute of Medicine of the National Academy of Sciences in Washington. There he established his reputation as a fine fundraiser. He reached out to the potential donors and extolled the virtues of Brandeis, focusing on the extraordinary caliber of the faculty. Thier was credited with the renewed enthusiasm that pervaded the university and improved its reputation in the early 1990s. He resigned in 1994 to take the presidency of Massachusetts General Hospital.

Thier's successor was a groundbreaker in a new sense. Jehuda Reinharz became the first Brandeis president who was also an alumnus of the university. At the time he was chosen to be Brandeis's seventh president, Reinharz was a 49-year-old professor of modern Jewish history at Brandeis, and his wife, Shulamit Reinharz, was a professor of sociology and the director of the Women's Studies Program. Reinharz was also the author of the most respected biography of Chaim Weizmann, who was the first president of Israel and a former president of Hebrew University on Mount Scopus in Jerusalem. Reinharz was also welcomed warmly, and he set about to increase the university's endowment while ensuring continued excellence in undergraduate education. He acknowledged that Brandeis faculty members were often paid less than their counterparts at other universities, and he hoped to be able to attract the best of faculty and students and keep both.

In the late 1990s, Brandeis embarked on a new project together with the Jerusalem Foundation. Headquartered at the university and at a new campus to be built in Jerusalem is the International Center for Ethics, Justice, and Public Life. The goal of the center is to address moral issues affecting people around the world by bringing students, scholars, and professionals together. They examine such broad-based issues as coexistence and envisioning a just society. An outreach program for professionals and corporations called Brandeis Seminars was thriving toward the end of the century. These day-long seminars began at the university in 1981 as the Humanities and the Professions Program. The program expanded and was taught by Brandeis scholars to peer groups such as teachers, judges, or physicians and to organizations such as companies. Through the analysis of literary texts and the relation of those texts to the group members' lives, participants addressed issues including leadership, communication, and morality. The seminars were partially funded by the National Endowment for the Humanities and the Exxon Foundation.

The pride of Brandeis University is its faculty. A high proportion of faculty members are members of the National Academy of Science. The faculty/student ratio for undergraduates is 10:1. Of 354 full-time faculty, and 159 part-time faculty, 97 percent hold Ph.D. or equivalent degrees. The university offers degrees including Bachelor of Arts, Master of Arts, Master of Science, Master of Fine Arts, and Doctor of Philosophy. Bachelor of Arts degrees are offered in 32 fields of concentration, and graduate degrees are offered in 29 major fields of study. Specialized academic programs include independent study, honors program, double majors, five-year combined B.A./M.A. programs, and cross-registration with nearby universities.

Students are from highly diverse backgrounds and come to the university from all 50 states and from 65 foreign countries. More than 90 percent of Brandeis students live on campus, which has led to a strong sense of community. Many students take advantage of opportunities to study and intern abroad. Overall, enrollment in the graduate programs at Brandeis increased 75 percent from the late 1980s to the late 1990s.

Brandeis was among the more expensive private universities in the 1990s, with tuition and fees well above \$20,000 annually. Many Brandeis students received some form of financial assistance, since the university adhered to a need-blind admissions policy. The university awarded more than \$25 million dollars in grant funds to undergraduates in 1995–96.

Brandeis's overall standing among all private research universities was improving toward the end of the century. In humanities, Brandeis was ranked third, ahead of Brown, Harvard, Columbia, and Chicago, and in sciences Brandeis ranked 12th, ahead of the University of Pennsylvania and Duke. In the social science index Brandeis ranked 18th.

**Further Reading:** For a personal look at the history of Brandeis University the best source is *A Host at Last*, by university founder Abram L. Sachar (Boston: Little Brown, 1976). John A. Gliedman's "Brandeis University: Reflections at Middle Age," in *American Jewish History* 78:4 (1989), covers the controversies of the 1980s. Also, Brandeis has an accessible and attractive web site at <http://www.brandeis.edu>.

—Michael Mundt and Fran Schonfeld Sherman



# BRIGHAM YOUNG UNIVERSITY

## (Provo, Utah, U.S.A.)

**Location:** The 638-acre campus of Brigham Young University is located in Provo, Utah, 45 miles south of Salt Lake City. Provo, a city of 98,000, sits in the Utah Valley, at the western base of the Wasatch Mountains. Provo is nestled between this branch of the Rocky Mountains and by Utah Lake to the west, stretching both north and south of the city.

**Description:** Brigham Young University, sponsored by The Church of Jesus Christ of Latter-day Saints (the LDS Church), enrolls over 30,000 students in both graduate and undergraduate programs. This school, founded by members of the LDS Church in 1875 as Brigham Young Academy, provides a comprehensive education in an atmosphere which stresses the virtues of academic study and the Mormon way of life. Primarily an undergraduate school, Brigham Young University receives recognition for its law school and business program, and for its nationally ranked athletic teams.

**Information:** Admissions Office  
P.O. Box 21110  
Provo, UT 84602-1110  
U.S.A.  
(801) 378-2507

**Visiting:** Visits may be scheduled through the Office of School Relations-Campus Visits, P.O. Box 23201, Provo, UT 84602, (801) 378-4431.

Brigham Young University, founded in 1875 as Brigham Young Academy, integrates the teaching of religious doctrine with the pursuit of academic excellence. Established under a deed of trust by Brigham Young, then president of The Church of Jesus Christ of Latter-day Saints, the school struggled for nearly 50 years to remain in operation. In the financial boom of the post-World War II years, the university expanded exponentially in the number and quality of students and faculty, curriculum offerings, library holdings, and campus facilities. Throughout university history, its members have upheld the commandments of the church while pursuing academic integrity in the eyes of the larger American learning establishment. One of the largest private universities in the United States in 1997, Brigham Young is the only church-sponsored institution which refuses to adopt the popular academic attitude of moral rel-

ativism. The university operates successfully under an academic code which forbids the teaching or publication of any views against the church as an institution or against church doctrine.

Members of The Church of Jesus Christ of Latter-day Saints (LDS), commonly known as Mormons, settled Provo in 1849. This Mormon settlement was one of many founded in the Salt Lake Valley area during the 1840s and 1850s as Mormons fled religious persecution and mob violence in Illinois and Missouri. Joseph Smith, founder of the Mormon Church, was murdered on June 27, 1844, in Carthage, Illinois, and within a year, mobs surrounded the nearby Mormon settlement and threatened to take the city by force unless the Mormons agreed to evacuate by spring of 1846. Despite the fact that Mormonism embraced the teachings of the Bible, the predominant Christian denominations in the United States found the Mormon practice of polygamy to be blasphemous and took legal and physical action against them. Brigham Young, Smith's successor as president of the Mormon church, saw that the church's survival depended upon evacuation and organized groups of settlers to journey to the Rocky Mountains. Selecting the valleys of Provo and Salt Lake, Mormon wagon trains moved slowly westward toward an agriculturally barren haven in which to practice their religion.

Upon settlement, Mormons moved quickly to secure schooling for their children. They viewed formal education as an essential part of becoming a responsible member of Mormon society; small frontier schools taught rudimentary reading, writing, and arithmetic, and emphasized the teachings of the Bible and the Book of Mormon. Students acquired the skills necessary to study the teachings of God and practiced the values taught by the Mormon community. Brigham Young University grew out of this tradition; established on October 16, 1875, under a deed of trust from church president Brigham Young, Brigham Young Academy taught reading, penmanship, orthography, grammar, geography, and math, inculcating the doctrines of the Old and New Testaments, the Book of Mormon, and the Book of Doctrine and Covenants.

The Academy struggled, as did other Mormon schools, to survive financially during the late nineteenth and early twentieth centuries. Although Brigham Young Academy had the verbal support of both Brigham Young and the church, The Church of Jesus Christ of Latter-day Saints provided little financial support until the school's official incorporation by the church in 1896. For 21 years, the Academy depended upon the small contributions of students and of local Mormon families and received its larg-





*Brigham Young University*

est support from a small number of wealthy members of the Mormon Church. Abraham O. Smoot—banker, colonizer, financier, legislator, merchant, delegate to territorial conventions, large-scale cattle and sheep man, mayor of Provo, and president of the Utah Stake of the Mormon Church—served on the BYA board of trustees and became the principal benefactor of Brigham Young Academy. When the school's quarters were destroyed by fire in 1884, Smoot enabled the school's survival, initially by acquiring temporary accommodations for the school and secondly by negotiating and underwriting the necessary loans to erect a new school building. Despite financial limitations, the resulting Academy Building was constructed neither of modest material nor of subtle design. Dedicated in 1892, the Academy Building rose two-and-a-half stories against the backdrop of the Wasatch Mountains jutting suddenly into the sky. Constructed of stone and reminiscent of the architecture of Oxford University in England, the Academy Building meant more than a new educational facility; it represented the dedication and hope of BYA officials and trustees to

build an influential Mormon Church university. Although no longer a part of Brigham Young University campus, the building still stands on University Avenue in Provo and attests to the fulfillment of early BYA dreams.

Lack of internal funding was only one factor which threatened the development of the university. Throughout its early years and continuing until Utah achieved statehood in 1896, United States' policies endangered the existence of all Mormon schools. The movement toward non-denominational, secular schooling threatened Mormons with the double burden of supporting both secular schools and Mormon schools. Because Utah was a territory, and not a state of the Union, Mormons faced the imposition of laws created by a minority of non-Mormon residents and by the greater United States government. Growing popular antagonism over the Mormon practice of taking plural wives reached critical conditions in 1896, when the United States prepared to physically enforce their laws outlawing polygamy. Young decided to sacrifice the Mormon tradition of plural wives and to accept the laws of the United States, thereby removing the sig-

nificant point of contention between the Mormons and the U.S. government. When Utah applied for statehood later in the year, the U.S. granted their request, allowing Mormons their right to local and state self-representation. This proved positive both for the continued survival of the Mormon Church and for the dozens of Mormon schools in Utah.

Benjamin Cluff Jr., president of Brigham Young Academy from 1892 to 1904, witnessed the alleviation of the major external and internal threats to BYA survival. The year 1896 not only marked the acquisition of U.S. citizenship for the Utah Mormon population, it also marked the year that the LDS Church agreed to incorporate Brigham Young Academy. Church support had been intermittent in previous years and continued to fall short of Academy requests, especially in times of national depression; but, after incorporation, the church provided for the barest of survival even in times of church poverty. The efforts of Benjamin Cluff account largely for the church's incorporation of the school. In previous years, the church had refused to take the school under its financial wing, even at the request of church dignitary Smoot. During Cluff's administration, church appropriations rose from \$2,000 to \$30,000 per year.

Cluff worked hard to create an institution of service to the church. In the early years, Brigham Young Academy trained Mormon teachers to fulfill both its own needs for additional teachers and for the needs of surrounding Mormon schools. Continued growth of public and private schools in Utah and the surrounding territory increased demand for teachers and fostered the growth of BYA's normal school for teacher training. A specialized curriculum was also developed to train Mormon missionaries. The LDS Church placed considerable emphasis upon missionary teaching, both in the United States and abroad, and called members to service, sending them on assignments for months or years. The normal and theological departments, developed during the Academy's early years under the principalship of Karl G. Maeser (1876–92), prepared Mormon youth to serve the LDS Church. Under Cluff's administration, the normal school flourished and awarded its first degree, bachelor of pedagogy, in 1897. Twenty years later, the LDS Church named BYU its official church teachers' college.

Cluff began his principalship with one primary goal: to transform Brigham Young Academy into a great Mormon university. Cluff strengthened both the high school and college curricula, creating a number of separate schools, including a kindergarten department, a preparatory department, a missionary department, a high school, a normal school, a commercial school, a music school, and a collegiate department. For years the church had been contemplating the establishment of a university to be the center of LDS education; Cluff and BYA trustees pushed to have Brigham Young Academy chosen for this honor. The church was unprepared to name BYA its official university

in 1903 but recognized the school's growth by authorizing the name change to Brigham Young University.

When Cluff resigned in 1904, Brigham Young University remained unaccredited by U.S. accrediting agencies. President George H. Brimhall strengthened collegiate course work and hired higher-credentialed faculty in his efforts to make BYU worthy of academic accreditation. During the Brimhall years, a variety of new courses were added to the curriculum, including literature and composition, horticulture, medicine, nursing, nutrition, and sex education. During the initial years of the Brimhall administration, BYU enrolled about 100 college-level students. Although most students left before earning a degree, BYU awarded its first bachelor of arts in 1906; some students also continued their education at such U.S. institutions as the University of Chicago, Stanford, Harvard, and Yale. Brigham Young University enrollment doubled in 1909, and the university expanded its campus with the Maeser Memorial Building built on Temple Hill and dedicated in 1911. Although offering new courses, attracting greater numbers of students, and awarding more advanced degrees elevated the school in the eyes of accreditors, the key to accreditation lay in the acquisition of higher qualified faculty.

Because BYU degrees did not confer status in the larger world of learning, Brimhall hired a number of non-BYU faculty with higher degrees. At this time, the greater academic world had largely accepted the theory of evolution; new faculty members who had been introduced to the possibilities of a history of the world far different from that described in the Bible brought their ideas to the attention of both students and faculty. Joseph and Henry Peterson, brothers who had both received undergraduate degrees from the University of Chicago and graduate degrees from Harvard, joined BYU in the fall of 1907. Joseph Peterson was the first Ph.D. to be employed at BYU. Along with other new faculty, they began teaching courses such as "Ecclesiastical Sociology," "The Course of Human Progress," and "The Psychology of Religion," which emphasized scientific principles and the relationship between scientific philosophy and Mormon doctrine. Their efforts to rationalize the teachings of the Bible with the theory of evolution suggested the possibility that some of the basic tenets of the past teachings of the school and the church were either over-simplified or in error. The resulting controversy seemed to indicate the incompatibility of Mormonism and modern standards of higher learning. The campus overall was sympathetic with the new views, and the church became concerned that students were losing their faith as a result of the new teachings. In 1911, the church discharged three faculty members, including Joseph and Henry Peterson, and within the next two years 22 of 60 total faculty members left BYU due both to the pressures of the academic policy and because of low salaries. The university did not receive accreditation during Brimhall's presidency; during the following



decade, BYU struggled through the World War I, a flu epidemic which closed the school during the fall term of 1918, and school indebtedness which resulted in the 1918 LDS purchase both of BYU's assets and debts.

Franklin Stewart Harris (1921–45) secured BYU accreditation following a seven-year period of school reorganization and development. He upgraded class requirements and academic regulations, prohibited high school students from enrolling in college courses without special permission, separated upper and lower division university classes, enforced stricter college entrance and graduation requirements, and standardized the university grading system. He created five colleges in three years: the College of Education, the College of Commerce and Business Administration, the College of Applied Science, the College of Fine Arts, and the College of Arts and Sciences. He also created a number of divisions for areas of specialized study, including a research division in 1921 and a graduate division in 1922. Harris strengthened library holdings and upgraded the quality of faculty, not simply by hiring new teachers, but by providing sabbatical leaves for existing BYU faculty to go back to school and receive higher degrees. In 1928, the Association of American Universities put BYU on its approved list of colleges.

On October 24, 1929, the stock market crashed and the resulting nationwide depression significantly depleted LDS Church funds. The church considered closing BYU, but the transference of a number of church junior colleges allowed BYU to remain in operation. In 1935 the church regained its financial footing and provided more aid to BYU. During the next ten years, BYU grew slowly. With the beginning of U.S. involvement in World War II in 1941, BYU's enrollment dropped and women dominated the campus. The return of U.S. veterans in 1945 transformed the school; enrollment doubled, returning to the pre-war numbers of nearly 3,000, and continued to increase during the presidencies of Howard S. McDonald (1945–49) and Christen Jensen (1949–51). BYU's greatest period of physical growth began with the national post-war financial boom during these presidencies and continued during the presidency of Ernest L. Wilkinson (1951–71). Wilkinson executed a massive expansion program, receiving nearly \$10 million from the board of trustees in 1953, which resulted in the construction of nearly 250 new academic buildings by 1971. Purchasing land adjacent to the Maeser Memorial Building on Temple Hill, the campus moved entirely to this location. Wilkinson provided substantial increases in faculty salaries; by 1971 the number of full-time faculty had quadrupled to 932, over 500 with doctorates. At the end of Wilkinson's presidency, BYU included 13 undergraduate colleges with 71 departments, offering associate degrees in 20 areas, bachelors degrees in 70 areas, and masters degrees in 40 areas. Library holdings increased from 170,000 available books to 1 million. In 1967, the BYU University Press began publishing books, monographs,

and periodicals. Student enrollment grew by 500 percent, to a total of 25,000 in 1971, and included students from all 50 states, from 106 foreign countries, and 8,900 returned missionaries. Church approval and financial prosperity allowed for this astronomical growth; and, although accrediting agencies criticized the fact that 95 percent of faculty were members of the LDS Church, approval could not be withheld in light of the vast and varied academic and research offerings.

During the period of rapid growth under the Wilkinson administration, BYU retained its focus upon a religiously centered education. When it became apparent that lower percentages of students were actively involved in church activities, Wilkinson established campus stakes and wards which paralleled the stake and ward divisions of the church as a whole, increasing the opportunities for student involvement. This effectively increased the percentage of students participating in church activities. A school honor code, still in effect today, required that students follow certain dress and appearance requirements; forbade the use of tea, coffee, tobacco, alcohol, and other drugs; prohibited non-marital sex and abortion; and required that students obey, honor, and sustain the laws of both the church and the United States. During the 1960s, when American campuses became the sites of student riots and demonstrations, BYU's campus remained calm and unaffected, reflecting the strength of the Mormon honor code. Brigham Young University asked both students and faculty to do their utmost to strengthen their commitment to Mormonism. Although faculty were allowed to apply for temporary federal research grants, BYU policy forbade the acceptance of direct federal aid. The LDS Church required, and continues to require, the contribution of one-tenth of personal income from its members. Because membership has grown steadily, church support of BYU has also grown, keeping tuition to one-fourth the tuition of Yale, Princeton, Notre Dame, and other private universities. With church support so strong, BYU has not been forced to accept federal aid and has retained its religious focus.

The Provo campus of BYU stopped growing in the 1970s when undergraduate enrollment was fixed at 25,000 and graduate enrollment at 2,000. Presidents Dallen H. Oaks (1971–80), Jeffrey R. Holland (1980–89), and Rex E. Lee (1989–96) consolidated and streamlined university programs, policies, and procedures in order to maximize the school's academic potential. The church has increasingly utilized BYU to facilitate their work in other areas; the BYU system now includes a campus in Laie, Hawaii (previously the Church College of Hawaii), the LDS Business College in Salt Lake City, and elementary or secondary schools in countries such as Mexico, Fiji, Indonesia, New Zealand, Tonga, and Western Samoa. The BYU Language Research Center works on projects designed to aid the church in its worldwide missions, preparing and updating an intercultural data bank



to aid in the translation of words, ideas, and concepts from one culture to another. The Religious Studies Center, founded by Dean Jeffrey R. Holland in 1975, researches church-related historical and doctrinal topics. Topics funded for the 1995–96 academic year included: the Mormon Battalion, the growth of the church in Brazil, and the history of the Book of Abraham.

Over the years, the school never lost sight of its central purpose; the university's mission over a century after its founding remains to teach the gospel of Jesus Christ and to pursue all truths through the arts, letters, and sciences. Brigham Young University has received repeated criticism throughout the years for its tenacious hold on religious tradition, yet academic accrediting agencies have praised both the institution's general undergraduate program and its business and law schools. For, while the singular ideological focus of BYU precludes the university's ability to develop respected graduate programs in the sciences, Mormon dedication to the law has fostered the growth of the J. Reuben Clark Law School, established in the fall of 1973. While most American religious universi-

ties have either compromised their views to gain federal funding or remained satisfied with a secondary role in American higher learning, Brigham Young University has chosen to place emphasis on the fields of learning encouraged by their religious views. The university continues to grow in stature and its current president, Merrill J. Bateman (1996–), announced a \$250-million capital campaign designed to secure the university's position well into the twenty-first century.

**Further Reading:** Good histories of Brigham Young University may be found in *Brigham Young University: A School of Destiny*, edited by Ernest L. Wilkinson and W. Cleon Skousen (Provo, Utah: Brigham Young University Press, 1976), and in *Brigham Young University: The First One-Hundred Years*, edited by Ernest L. Wilkinson (Provo, Utah: Brigham Young University Press, 1975–76).

—Beth Rillema

# BROWN UNIVERSITY

## (Providence, Rhode Island, U.S.A.)

<b>Location:</b>	In central Providence, a half mile from the Providence River and City Hall.
<b>Description:</b>	A private university enrolling approximately 6,800 students in undergraduate, graduate, and professional schools.
<b>Information:</b>	Admission Office—The College Brown University Box 1876 Providence, RI 02912 U.S.A. (401) 863-2378
<b>Visiting:</b>	Guide tours of the campus are available. For more information, please contact the admissions office at (401) 863-2378.

Brown University was founded in 1764 by the Baptists of America. The late eighteenth century was a period ripe with interest in education. As the colonies became more settled and agriculture and commerce flourished, interest turned from day-to-day survival to the more lofty concerns of expansion of the colonies' various religious denominations. The expansion of religious pursuits in the New World was to be achieved primarily by each denomination educating its young men for the ministry. In fact, the first eight colleges founded in America were controlled by religious bodies. Brown University was the seventh college to be founded in America and the third in New England.

The charter of Brown University (then known as Rhode Island College) was one of the most liberal of its kind at the time. While there was a desire to perpetuate an educated ministry, the charter outlined the purpose of the college as "preserving in the Community a Succession of Men duly qualify'd for Discharging the Offices of Life with usefulness and reputation." With an outlook unusually farsighted for the time, the Charter required "that Public teaching shall in general respect the Sciences," which based the university principles on the same premises of religious liberty with which Roger Williams founded Rhode Island.

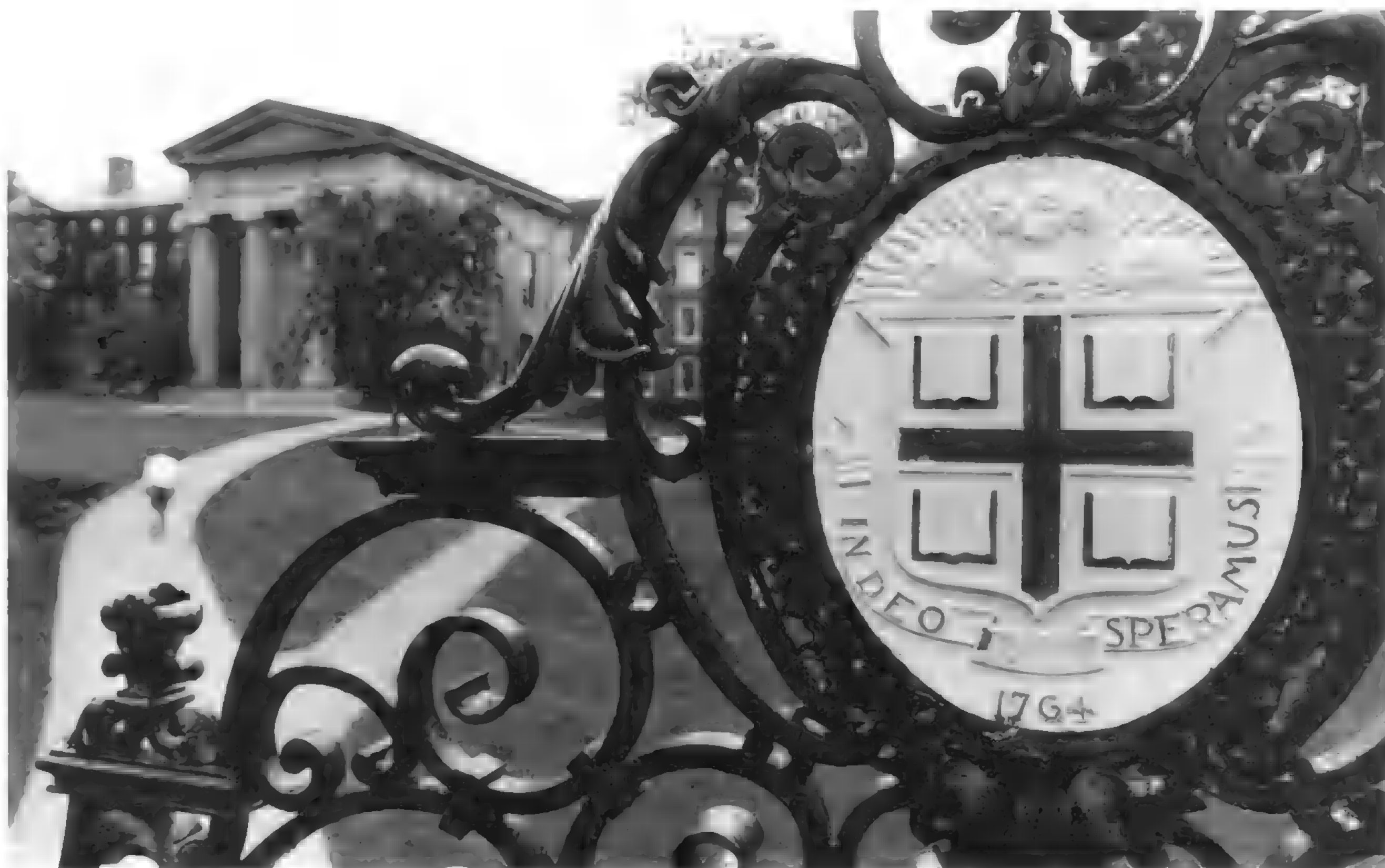
When Brown University began its life as Rhode Island College in the small village of Warren, Rhode Island, in 1765, it had one student, William Rogers, and one faculty member, the college's first president, James Manning. The university soon grew to an enrollment of

ten. The first commencement exercises were held in 1769, at which time it was determined that the college would be moved. One of the many criteria suggested for choosing among the towns was the presence in the community of scientific books and apparatus and men who knew how to use them. With these criteria, the likely choice was Newport; however, Providence was championed by the mercantile family of the Browns, who pledged slightly more of the cost for the building of a college edifice. The move to what is now known as "College Hill" took place in 1770.

As the young college had just begun to grow, key political changes were occurring in the colonies, with increased rebellion and unrest culminating in the American Revolution. On December 14, 1776, President Manning published a notice in the *Providence Gazette* that "attendance on College Orders is dispensed with until the End of next Spring Vacation." He issued a further notice the following May that "Prosecution of Studies here is utterly impractical, especially while this continues to be a garrisoned Town." The college remained closed from 1776 to 1782, during which time the campus was used by the American and French troops as a barracks and hospital.

After the revolution, the university found itself in a shambles physically and financially. In 1782 the infant government of the United States was presented with a bill for just over £1,309 for damages to the campus. Interest was added as of December 1792, increasing the total due to £2,300 or approximately \$7,667.00. The only payment the university received from the government came eight years later in the amount of \$2,779.13. The college's financial difficulty drove President Manning to seek funds from numerous sources. Manning sought out prospects ranging from alumni to the king of France. However, numerous attempts to improve the financial situation of the college yielded few donations. The help the college did receive came from a humbler but surer source, an increase in the number of students, with a small advance in the price for tuition. In the fall of 1783, Mr. John Brown offered the college assistance in improving its facilities for instruction. He offered to pay half the amount needed to purchase a "compleat Philosophical Apparatus & Library" if the college could raise the balance. After only a few days £700 was secured for this purpose.

The college also began to increase the size of its faculty. Joseph Brown, a member of the Brown mercantile family, and Benjamin Waterhouse were appointed to it in 1784. They were soon joined by other faculty and tutors.



*Brown University*

The steadily growing student enrollment allowed for and necessitated the increases in the size of the teaching body. Though Joseph Brown died in 1785, the Brown family's involvement in the college that would bear their name was just beginning. In 1804 Nicholas Brown, a member of the class of 1786, and then treasurer of the college, made a large monetary gift. The name of the college was then changed to Brown University. As a result of Brown's generosity, Hope College, Manning Hall, and the Library Fund came into existence. The John Carter Brown Library, named for Nicholas Brown's son, is the choicest material possession of the university.

Under the third president of Brown University, Asa Messer, the college saw its first major innovation. A medical school was established in 1811 with the appointment of three professors. The standard of medical education in the United States at that time was so poor that even the scantily equipped new Brown University medical program was tolerated. After receiving criticism from a Brown alumnus over the inadequacies of the medical school, additional medical faculty were appointed to begin giving credibility to the fledgling program. Eighty-seven students were graduated from Brown University

Medical School between 1804 and 1828. Many of the graduates moved on to become well known members of the medical profession. Jerome V.C. Smith was editor of the *Boston Medical and Surgical Journal* for 28 years. Alden March founded the Albany Medical College and was president of the American Medical Association. Other graduates held positions in the Rhode Island Medical Society, and many went on to professorships at such prestigious schools as Dartmouth and the College of Physicians and Surgeons in New York.

A new young president was appointed in March 1827. The personality of Francis Wayland would change Brown and its educational process. Wayland ruled that no instructor or student could bring a textbook into the classroom. He felt that both student and teacher would thus be forced to be completely familiar with the lessons and would be encouraged to engage in open discussion. He became one of the best known college presidents of his time, and, toward the end of his long administration, he attracted attention in educational circles by introducing his New System at Brown. This was a new curriculum—radical for the era—that emphasized applied science and engineering and gave the students some choice in the



selection of courses. Walter C. Bronson commented that by adopting the New System and bringing in new "unconventional" faculty "that the college had evoked a spirit of freedom which flew straight in the teeth of old restrictions." Wayland ended his long administration at Brown in 1855. He stated that the formulation of the New System proved very laborious and worrisome and that he "would not, for any earthly consideration, go through the same work again."

Once again Brown University found itself involved in the political upheaval of war. Barnas Sears, Wayland's successor, conducted most of his tenure during the Civil War. Of the 278 men who were graduated during the war, 132 enlisted for service. The college did not grow in enrollment or equipment during this period, when most energy and efforts were directed to the war. After the end of the war—and after President Sears' resignation—the college enrollment regained its previous vigor.

The college saw great changes over the next 25 years. Athletics were organized and Brown was represented in several intercollegiate sports. The campus grew through increased donations and increased enrollment (as well as higher tuition and board rates). The University Extension was also a new creation just before the turn of the century. Its purpose was to bring the benefit of advanced studies to people other than matriculating students. By 1892 the extension offered 35 courses which were attended by 1,500 persons in 16 towns and cities. Another major change during this time was the creation of Pembroke College, an undergraduate college for women, in 1891. Its first class numbered seven but enrollment quickly increased to 157 by 1896. Elisha Benjamin Andrews, college president at the time, was slowly creating the modern Brown University. New departments were created, enrollment and faculty increased rapidly, and graduate study was encouraged. Brown awarded its first master of arts degree in 1888, followed the next year by its first doctorate. Brown was preparing itself for entry into the next century.

The next president, William Herbert Perry Faunce (a Brown graduate, class of 1880) began the longest administration in the history of the university. He held his position from 1899 to 1929. During these 30 years the college saw major increases in the size of its physical plant, made possible by the ninefold increase in its endowment. The college not only increased its physical presence, it also increased its presence in the American academic community. Entrance requirements were raised, the curriculum was broadened, and graduate studies were formally recognized by the creation of the graduate school.

Henry Merritt Wriston became Brown's 11th president in 1937. His impact on the university was enormous, maybe even greater than that of President Faunce, who had served for three decades. Dr. Wriston moved Brown from a college of only regional renown to a stature that

ranked among the outstanding universities of the country. His changes in curriculum and his employment of renowned faculty account for much of what Brown is today. The last changes Wriston made were through an ambitious building program, the chief feature of which is the quadrangle that now bears his name. Andrews Hall at Pembroke was also built during his administration, and he made a start on the West Quadrangle (renamed Keeney Quadrangle in 1982).

Two major innovations in curriculum took place during the mid-1960s. The first was the creation of a flexible approach to course selection and requirements for a bachelor of arts degree. The second was the creation of a six-year course of studies leading to a degree of master of medical science. The growing demand by students for involvement and responsibility in their own college life was only partially answered by these changes. This trend to greater student responsibility was reflected in the major curriculum reform, still widely referred to as the "New Curriculum," adopted in the spring of 1969, which introduced student choice and flexibility in programs.

Dr. Donald F. Hornig was elected as Brown's 14th president in the spring of 1970. Two major accomplishments during his years as president were the merger of the undergraduate college with Pembroke College into a completely coeducational undergraduate institution, and the establishment in 1972 of a full M.D. In October 1991, the program's name was changed to the Brown University School of Medicine. This program became one of the first in the United States to utilize a group of local hospitals for clinical training. Brown's medical program became fully accredited in 1975.

Dr. Hornig resigned in 1976, and the 15th president, Howard Robert Swearer, was named in *Time* magazine "Portfolio of 200 young American leaders." During Swearer's administration, Brown became one of the most sought after universities in the country, evident by major increases in applications for admission. The operating budget was balanced for the first time in a decade. The Campaign for Brown, a major annual fundraising effort begun in 1979, saw annual contributions increase sevenfold. Major construction projects totaling over \$40 million were completed during the late 1970s and early 1980s.

The college was again changing physically, but it maintained a philosophical base of integrated learning. In 1980 the Francis Wayland Collegium for Liberal Learning was established to provide a setting in which faculty were encouraged to develop courses that crossed departmental boundaries and to encourage interdisciplinary discussions.

In 1983 the university began a program to link the entire campus via computer network. The goal of having 10,000 work stations in use was accomplished by the end of Swearer's administration in 1988. Swearer's successor, Vartin Gregorian, took office in the spring of 1989 and continued to maintain Brown as a university of Ivy League stature.

Gregorian resigned in 1997. The *Boston Globe* reported that the retiring president was “widely credited with enhancing Brown’s reputation and strengthening its financial base, which had become the weakest in the Ivy League.”

Along with doubling the university’s endowment, Gregorian developed the Annenberg Institute for School Reform, which distributed \$500 million in grants to American public schools.

Brown continues to improve its ability to encourage student involvement in the educational process within Brown, and in the community around Brown. The university has maintained its high number of applicants, making admissions quite competitive.

**Further Reading:** Janet M. Phillips’s *Brown University, Short History* (Providence, Rhode Island: Brown University, 1992) provides the best brief, but thorough, account of the growth of the college from colonial times through the early 1980s. A detailed account of the early college is found in Walter C. Bronson’s *The History of Brown University, 1764–1914* (Providence, Rhode Island: Brown University, 1914). Bronson’s history was written to commemorate the 150-year celebration of the college founding. *Science and Technology in Providence, 1760–1914* (Providence, Rhode Island: Brown University, 1952) by Donald Fleming, also written as a commemoration, focuses on Brown’s role in the development of modern technology in Rhode Island and surrounding communities.

—Celeste A. Voyer

# BRYN MAWR COLLEGE

## (Bryn Mawr, Pennsylvania, U.S.A.)

<b>Location:</b>	Approximately 13 miles from the city center of Philadelphia.
<b>Description:</b>	A private women's university enrolling approximately 1,650 students in undergraduate and graduate programs.
<b>Information:</b>	Office of Admissions Ely House Bryn Mawr College 101 N. Merion Avenue Bryn Mawr, PA 19010 U.S.A. (610) 526-5152

Bryn Mawr College, located in Bryn Mawr, Pennsylvania, was formally established in 1880 to extend to women the opportunity for rigorous academic training (including the study of Greek, mathematics, and philosophy) that was then available only to men. When Bryn Mawr opened its doors in 1885, it offered the A.B., M.A., and Ph.D. degrees, making it the first women's college in the United States to develop graduate instruction leading to the doctorate. Today, Bryn Mawr remains a women's college at the undergraduate level, and coeducational in its two graduate schools—arts and sciences, and social work and social research.

Bryn Mawr College was founded by Joseph Wright Taylor in 1877. Taylor, born on March 1, 1810, in a farmhouse in New Jersey, was the youngest child in a large family that belonged to the Society of Friends (the Quakers). Taylor first studied to be an apothecary and later turned to the study of medicine. He became a doctor when he was only 20 years old.

Taylor eventually left the field of medicine and ended up working toward increased educational opportunities for women. He became a member of the Board of Managers of Haverford College (a Quaker institution near Philadelphia). He was one of a few Quakers who believed that the education of Quaker women was necessary and important. He believed that because the Quakers were proud of the fact that women were given the right of leadership as ministers, there should be a formal way to prepare women for this opportunity. Taylor thought that conditions required that the teaching profession include women. One of his reasons was the fact that fewer men were available because of the Civil War; furthermore, men were seeking the growing commercial and industrial opportunities.

At this time, the issue of women's education was being considered at the many new colleges which were opening throughout the United States. Such women's colleges as Vassar, Wellesley, and Smith had opened; a few institutions, such as Cornell, which had formerly admitted only males, began admitting women. Universities in the western United States were beginning to admit women but, overall, those schools had small enrollments.

Taylor, actively involved in both the planning and building of Bryn Mawr, came every day to survey the progress of the work at the site just outside Bryn Mawr, chosen because of its close proximity to Haverford and the wide country landscape that meant so much to Taylor.

On August 4, 1879, ground was broken for Taylor Hall, the administration building. Taylor did not live to see the completion of the college. However, he had included the plan for the college in his will, along with specific instructions as to its completion and organization. Taylor's will specified that future trustees were always to be chosen from among the orthodox branch of the Society of Friends and that they were to be a self-perpetuating body, filling vacancies as they occurred.

Although his successors were puzzled by many of Taylor's goals, one singular purpose has remained clear. According to Cornelia Meigs in her history of the college, "His main purpose was unfalteringly clear, for he never wavered in his intention to give young women a liberalizing education, one that would enlarge their lives and make them more responsive members of society. And, in the process, he wanted them to have the very best that could be given them."

In 1884, James E. Rhoads was elected first president, and Martha Carey Thomas was elected first dean. She had hoped to be Bryn Mawr's first president but was happy to accept the position as Rhoads' assistant. "I feel that in the future it will be constant pleasure to be able to work with thee in promoting its [Bryn Mawr's] success," she wrote. Rhoads' first ten years were consumed by the planning, building, and launching of the college. He was president of the new college for 15 years, during which time, his contributions to Bryn Mawr included opening the college and setting its high faculty and academic standards. In 1893, two years before Rhoads' death, Bryn Mawr's trustees decided to broaden Taylor's mission by declaring that Bryn Mawr would be non-denominational. They did ensure, however, that the college would remain committed to the belief in freedom of conscience.

It is unclear when it was decided that Bryn Mawr, unlike any other women's college already in existence, would offer graduate study. According to Thomas, "A col-





*Bryn Mawr College*

lege without graduate students . . . never occurred to us.”

Bryn Mawr’s first dean and second president, Martha Carey Thomas, spent her life promoting the education of women. When only 13 she wrote in her diary, “How unjust—how narrow-minded—how utterly incomprehensible to deny that women ought to be educated and worse than all to deny that they have equal power of mind.” She was president from 1894 through 1922. Bryn Mawr credits Thomas with giving “Bryn Mawr its special identity as a college determined to prove that women could successfully complete a curriculum as rigorous as any offered to men in the best universities.” She was driven to make Bryn Mawr the best, due largely in part to her competitive spirit. In her biography of Thomas, Helen Lefkowitz Horowitz wrote, “If James Rhoads could not do something, she could. She would learn it all. From faculty and curriculum to entrance standards and furnaces, Bryn Mawr would set the standard.”

Cornelia Meigs summarized Thomas’s tenure: “Through all the years of her presidency she had a central and often repeated statement of intention ‘to raise the standard of the College.’ It was not enough to set the pattern and hold it; there must be steady advance along every line, through the oral language examinations, through the

‘merit law’ by which a student must maintain a certain level of good work, through the constant survey of the quality of teaching.”

Thomas faced a great struggle, however, as she had different ambitions from those of the trustees. She felt that the Bryn Mawr of the 1890s was only the beginning, not the end. Thomas had used Taylor’s endowment to create a secular and cosmopolitan college, believing that the college should be as large in size as in talent. The trustees, on the other hand, felt that both Rhoads and Thomas had ambitions for Bryn Mawr that far exceeded Taylor’s endowment. As a result, initially, they blocked its growth, hoping Bryn Mawr would remain small, as Taylor had desired.

Thomas began work toward the growth of Bryn Mawr. One of her main goals was the construction of a library. In 1901, John D. Rockefeller agreed to give \$250,000 to build a dormitory and a new power plant for heating and lighting the college, if the college could raise the same amount to build the library.

During the period of raising money for the library, the alumnae had given great assistance in raising funds. (Formed after Bryn Mawr graduated its first class, the alumnae association soon commissioned renowned artist

John Singer Sargent to paint a portrait of Thomas.) Bryn Mawr's library opened in 1906; at the opening ceremony Thomas declared that the new library not only provided space for books and professors' offices, but would also begin a new era of teaching at Bryn Mawr because teachers would have proper places to confer with students.

Thomas developed the school of education so that Bryn Mawr could study and practice the increasingly popular, newer methods of teaching young children. The school opened in 1913 and enjoyed great success. The founding in 1910 of the Carola Woerishoffer Graduate Department of Social Economy and Social Research was Bryn Mawr's first "professional school." Although called a graduate department, it had its own M.A. and Ph.D. and its own certificate of completion. As testimony to Thomas's understanding of the needs of the time, Bryn Mawr's school devoted to social service studies was followed by the opening within the next few years of similar schools and departments at Northwestern, Johns Hopkins, Harvard, the University of Chicago, and the University of Missouri.

In the later years of her administration, Thomas gave increasing attention to public affairs, as she and Bryn Mawr had become internationally known and respected. Considered the leading authority on women's education in the early twentieth century, Thomas retired in June 1922. She continues to be one of the legends in the history of Bryn Mawr College.

Marion Edwards Park, Bryn Mawr's third president (1922–42), was the first alumna to be president. Park found herself having to guide the college during the Depression. Among the challenges facing her was the issue of whether Bryn Mawr should continue to offer a graduate program. A committee was organized (headed by another active alumna, Eunice Schenk) to decide the issue; it found that providing graduate study was valuable to both the students and the college. As a result, in 1929, Park formally established the graduate school. The school now had a full organization of its own as well as a dean. Reorganization of the graduate school continued throughout the twenties and thirties with studies liberalized and with greater emphasis on independent study and research from primary sources. In the 1930s, men were first admitted to the college's two graduate schools.

Major changes marked Park's presidency. Many new buildings were constructed including a new library, Rhoads Hall, and the science building. In addition, there were important curriculum changes; one was the introduction of honors work, resulting in the offering of the status of "graduation with honors." Foremost among the changes was the introduction in 1937 of the comprehensive examination, officially designated as the Final Examination during which students were required to demonstrate extensive knowledge of their major subject, with one field of special concentration and one of a related area.

Perhaps Park's greatest legacy was the move away from isolation that had previously distinguished Bryn Mawr. It was Park's innovation to form the three-college cooperation between Bryn Mawr, Haverford, and Swarthmore. Although the idea had existed for some time, it was Park's special effort that made it into a reality. The colleges' cooperation led to such practical measures as pooling library resources and allowing students to enroll in courses at the other colleges.

The college's fourth president, Katherine Elizabeth McBride, 1942–70, presided over the college during a time of great change and tremendous growth. The size in the student body increased from 500 in 1940 to 750 in 1970. This growth required the expansion and addition of new facilities. After World War II, the G.I. Bill of Rights provided thousands with the opportunity to go to college. President McBride found herself with the task of deciding whether Bryn Mawr should allow male veterans to be admitted. Men of course were already allowed under the three-college cooperative agreement. "Outside" men were permitted during this time as day-students in order to accommodate the overflowing numbers trying to get into men's and coeducational schools.

Long before the issue of admitting men arose, Bryn Mawr had solved a problem many colleges found thorny—student governance. Bryn Mawr students have one of the oldest systems of self-government in the United States. Today, of the roughly 35,000 colleges and universities in the United States, only about 30 campuses have such a code. Bryn Mawr's self-government system (Self Government Association or SGA) was founded by one of the students—Susan Walker, class of 1893. The campus community functions under a student administered academic and social honor system. The honor code applies to both residential life and academic work, from original research activities to self-scheduled examinations. Today, the SGA, which consists of 124 elected positions, acts as a liaison between Bryn Mawr undergraduates, officers, faculty, and alumnae.

Bryn Mawr College has acquired a reputation for attracting both distinguished students and professors. Woodrow Wilson, who served as president of the United States from 1913 to 1920, joined the faculty of Bryn Mawr as an assistant professor when the college was opened in 1885. Emily Green Balch, class of 1889, was the recipient of the first Bryn Mawr European Fellowship. The fellowship took her to the Sorbonne in Paris, on the first step of a distinguished career as an economist, social reformer, and peace worker. In 1946, Balch received the Nobel Peace Prize for her work in the furthering of peace.

As of 1994, Bryn Mawr was the only women's college and one of five liberal arts colleges among the top ten institutions in the nation with the highest percentage of winners of the National Science Foundation Graduate Fellowships. The college is also proud of the fact that the percentage of

graduates earning degrees in the physical sciences is five times higher than the national average overall, and nine times the average of degrees earned by women.

Notable Bryn Mawr alumnae include Marianne Moore, poet; Katherine Hepburn, actress; Alice Rivlin, deputy director of the White House Office of Management and Budget in the administration of President Bill Clinton; Anna Kisselgoff, chief dance critic for *The New York Times*; Katharine White, co-founder of *The New Yorker*; Candace Pert, psychoimmunologist. Bryn Mawr also graduated the co-founder of the League of Women Voters (Edna Fischel Gelhorn), the first woman lawyer to argue a case before the United States Supreme Court (Susan Brandeis Gilbert), the first director of the Congressional Bud-

get Office (Alice Rivlin), and the first woman president of the State Bar of California (Margaret Morrow).

**Further Reading:** Helen Lefkowitz Horowitz's *The Power and Passion of M. Carey Thomas* (New York: Knopf, 1994) is a very detailed biographical account of both the public and private life of Bryn Mawr's first dean. An extensive historical account of the first 70 years of Bryn Mawr College is contained in Cornelia Meigs' *What Makes A College? A History of Bryn Mawr* (New York: Macmillan, 1956).

—Judi Gerber



# CALIFORNIA INSTITUTE OF TECHNOLOGY

## (Pasadena, California, U.S.A.)

<b>Location:</b>	In Pasadena, 25 miles inland from the Pacific Ocean, and ten miles from the Los Angeles Civic Center.
<b>Description:</b>	A university that specializes in science and engineering disciplines for a student body of approximately 900 undergraduates and 1,100 graduate students.
<b>Information:</b>	Office of Admissions California Institute of Technology Pasadena, CA 91125 U.S.A. (818) 395-6216

The California Institute of Technology's physical appearance is deceiving. The small and independent university is set in a lush 124-acre California campus, and housed in one-story traditional buildings of stucco. Yet the institute is a "hotbed" of high technology and pioneering science that has changed the course of history. With the additions of such famous off-campus facilities as the Jet Propulsion Laboratory, Palomar Observatory, and the W.M. Keck Observatory, professors and students alike have attained scientific wonders for over 50 years. The university, most often called Caltech, has employed 22 Nobel Prize recipients. Thirty-seven alumni and faculty members also have received prestigious awards for scientific achievements.

In 1891 the Honorable Amos G. Throop founded a local school of arts and crafts in Pasadena. Although it was initially known as the Throop University, the trustees would later rename the university Throop Polytechnic Institute. For almost 20 years, Throop served the Pasadena community, offering a curriculum that led to a bachelor's degree. The campus also hosted an academy that emphasized vocational training, a high school, and an elementary school.

The school quickly became overcrowded. Through the generosity of Arthur H. Fleming and his daughter Marjorie, the Throop Polytechnic Institute moved from its quarters in the center of Pasadena to a new 22-acre site on the southeast edge of town. President James A.B. Scherer opened the school doors to 21 students and a teaching staff of 16 in 1910.

On March 21, 1911, Theodore Roosevelt visited Throop and told the students and faculty during an assembly:

I want to see institutions like Throop turn out perhaps 99 of every 100 students as men who are to do given pieces of industrial work better than any one else can do them; I want to see those men do the kind of work that is now being done on the Panama Canal and on the great irrigation projects in the interior of this country—and the one-hundredth man I want to see with the kind of cultural scientific training that will make him and his fellows the matrix out of which you can occasionally develop a man like your great astronomer, George Ellery Hale.

Roosevelt never dreamed that Hale had even greater ambitions for Throop. Hale, a well-known astronomer and first director of the Mount Wilson Observatory, envisioned Throop as a distinguished institute of engineering and scientific research. Under his inspiration, the institution's evolution began. Hale understood the necessity of modern, well-equipped laboratories. He never forgot, however, that the purpose of technology was to uplift humanity, not simply to develop machines. He said, "We must not forget that the greatest engineer is not the man who is trained merely to understand machines and apply formulas, but it is the man who, while knowing these things, has not failed to develop his breadth of view and the highest qualities of his imagination."

Two other scientists shared his vision. Along with Hale, chemist Arthur A. Noyes and physicist Robert A. Millikan set the school firmly on a new course, with instruction in engineering and the fundamentals of mathematics, physics, and chemistry. They enriched the technological curriculum with coursework in humanities. Noyes would become Throop's director of chemical research in 1919. Millikan became administrative head of the institute as well as director of the Norman Bridge Laboratory in 1921, a year after the university received its present name, the California Institute of Technology. Two years later, Millikan was awarded the Nobel Prize for physics. Because of Millikan's prestige, scientists such as Charles Galton Darwin, Paul Epstein, and Richard C. Tolman also came to Caltech.

The new curriculum meant specialization. The trustees had already decided in 1907 to discontinue the elementary, business, and high schools. Their action left only a college of technology and sciences that granted bachelor of science degrees in civil, electrical, and mechanical engineering. Hale, Noyes, and Millikan embarked on the Institute's renaissance. The three were celebrated



*California Institute of Technology*

research scientists, were well-respected in their fields, and enjoyed reputations that lured graduate students to the school.

Caltech's 1920 enrollment lists 9 graduate students and 359 undergraduates, with a teaching staff of 60. A decade later, there were 138 graduate students, 510 undergraduates, and a faculty of 180. Presently, there are approximately 1,100 graduate students, 900 undergraduates, and 1,000 faculty members.

Individuals, corporations, and foundations began to keep close watch on the institute's projects. Southern California Edison Company donated a high-voltage laboratory, with a million-volt Sorensen transformer. Foundations such as Carnegie, Rockefeller, and Guggenheim provided economic assistance for new enterprises.

These achievements made it necessary for the university to expand once again. The institute could not continue as simply an instructional and research center in engineering, physics, and chemistry. A gift of \$25,000 from the Carnegie Corporation of New York made exten-

sion studies possible. The board of trustees then approved a department of geological instruction and research, and a new seismology laboratory. The disciplines of economics, history, and literature were then added to the undergraduate curriculum in 1925. Thomas Hunt Morgan, who would receive the Nobel Prize in physiology or medicine in 1933, became the first chairman of the new division of biology in 1928. Under Morgan's guidance, Caltech's biology research advanced rapidly, especially in the areas of genetics and biology.

The institute also moved forward in the discipline of aeronautics. For years, Professors Harry Bateman and P.S. Epstein had taught courses in theoretical aerodynamics. In 1917, creators of a wind tunnel at the Throop Institute claimed that it could sustain velocities of 4 to 40 miles an hour. In 1926, the Guggenheim Graduate School of Aerodynamics was established. A related laboratory was completed in 1929. The new program, called GALCIT (Graduate Aeronautical Laboratories at the California Institute of Technology) under the tutelage of



Theodore von Karman, soon became the world-famous research center in aeronautics.

Meanwhile, George Hale and his Mount Wilson Observatory associates were busy in 1928, writing a proposal for a 200-inch telescope. They persuaded the General Education Board to donate \$6 million for the project's development. Caltech erected the huge instrument, known as the Hale Telescope, on Mount Palomar. It is still recognized as one of the largest and most powerful optical telescopes in the western world. Scientists and engineers conducted significant astronomical discoveries for 40 years with this mechanism.

Another milestone in Caltech's history occurred in 1930 when Linus Pauling ascertained the nature of the chemical bond—how atoms link up to form molecules in both living and non-living systems. Until then, chemistry had been controlled as much by serendipity as by science. Major advances in chemistry and molecular biology and the development of hundreds of synthetic products evolved from Pauling's discovery. Pauling received the Nobel Prize twice: in 1954 for chemistry and in 1962 for the Nobel Peace Prize.

In 1934, Caltech physicist Carl Anderson discovered a form of antimatter called the positron, the first particle of antimatter known to man. The antiparticle to the electron, the positron is a negatively charged particle that opened up new areas of subatomic physics. Physicists smash positrons and electrons together to investigate the fundamental forces that govern the universe. Anderson was awarded the Nobel Prize for physics in 1936.

From the 1930s to the 1960s, a group of Caltech biologists focused on molecular biology. These pioneers included Thomas Hunt Morgan, whose studies of the relationship of chromosomes to heredity would be the first chapter of modern genetics. In addition, George Beadle (Nobel laureate in physiology or medicine, 1958) made important discoveries about the chemical activity of genes. The third in this triumvirate, Max Delbrück (Nobel Prize for physiology or medicine, 1969) did significant studies about the nature of viruses and viral diseases.

Caltech is known throughout the world as the birthplace of modern earthquake science. Three institute scientists played a crucial part in developing seismology into an international technology of earthquake detection, study, and measurement. Harry Wood, a Caltech geologist, invented the first seismograph able to record distant quakes. Mathematician Beno Gutenberg and physicist Charles Richter devised the Richter Scale, used to this day by seismologists to measure the strength of a quake. During the 1970s, Hiro Kanomori of Caltech developed a new magnitude scale of quakes, able to measure accurately the strongest movements. Presently, the Lawrence Livermore National Laboratory and Caltech's Seismological Laboratory combine forces to understand earthquakes. A network of seismometers throughout Southern California connects

to Caltech over a variety of dedicated communications networks and computers. Caltech, the U.S. Geological Survey (USGS), and Pacific Bell announced in 1995 an 18-month monitoring system that would speed location data of earthquakes. The test not only searches for quake epicenters for all tremors over a magnitude of five, but also areas of highest shaking intensity.

During World War II, a large portion of Caltech's personnel and facilities were denoted to the war effort, through instructional programs and weapons research. Nonprofit contracts from the Office of Scientific Research and Development enabled Caltech scientists and technologists to develop systems essential to the nation's defense during this time. Rockets, jet propulsion, and antisubmarine warfare became the chief priorities of the day. Today, the National Aeronautics and Space Administration (NASA) is beneficiary of a large-scale program controlled by the Institute's Jet Propulsion Laboratory (JPL).

Caltech's JPL program began with four inventors, known affectionately by students and faculty as the "suicide squad," who would hide in trenches with sandbags piled in front of them. The researchers then would test rocket motors in the Arroyo Seco, about three miles above the Rose Bowl. The "suicide squad" researchers helped to transform Southern California into the aircraft capital of the world. From a shaky beginning with the "suicide squad," grew a multi-million dollar, 165-acre, government-owned development facility operated by Caltech to serve NASA. *The Daily News* of Los Angeles described some of JP's achievements:

JPL . . . is responsible for America's first successful earth satellite; first space probe; first lunar impact; first exploration of Mars, Venus, Mercury, Saturn, Jupiter and Uranus; the operation of Deep Space Network for tracking all U.S. space shots; and innovations and applications of space science to medicine, computers, communications and transportation.

Carl Sagan, the well-known astronomer, wrote in his book *The Cosmos*, "This is time when humans have begun to sail the sea of space." Sagan was at Caltech to assist in the launching of the spacecrafts Voyager 1 and 2. The vessels left earth in 1977, and were able to record images of Jupiter in 1979, Saturn in 1980, and Uranus in 1986.

The Gallileo spacecraft, en route to a December 1995 destination on Jupiter, flew by asteroid Ida in August 1993. Later, scientists were able to release a picture of one of Ida's natural satellites, thus proving moons of asteroids do exist. Meanwhile, NASA and JPL directed the Voyager 1 and 2 space vessels to leave our solar system on a quest to reach the point where the sun's effect ends, and interstellar space begins. Almost one-third of all JPL's work



today is related to national defense, computerized communications, and weather reporting systems.

Engineers, technicians, and scientists have pioneered in astrophysics for three decades in Caltech's Kellogg Laboratory. There, a team led by the late Charles Lauritsen proved that nearly all elements in the universe and in our bodies come from the stars. Kellogg physicist William Fowler shared the 1983 Nobel Prize with Subramanyan Chadrsekhar for that research, which further explained the chemical and physical processes between the stars and the universe. Yet Fowler never lost his sense of wonder at science, no matter how complex his discoveries. He once remarked, "It is a remarkable fact that humans, on the basis of experiments, and measurements carried out in the lab, are able to understand the universe in the early stages of its evolution, even during the first three minutes of its existence."

In 1953, Caltech geologist Clair Patterson conducted studies of the decay rate of lead isotopes in the Earth's oldest rocks, and determined that the Earth was 4.6 billion years old. Patterson then switched from analyzing lead in rocks to examining lead pollution in the oceans and atmosphere. He conducted comprehensive tests which proved that lead pollution from automobile exhaust had reached dangerously toxic levels in the environment. His experiments were a determinant in the federal government's decision to establish pollution control in the auto industry.

Robert A. Millikan retired as chairman of Caltech's executive council in 1945. Dr. Lee A. DuBridge became president on September 1, 1946. DuBridge arrived at Caltech after five years as serving as war-time director of the MIT Radiation Laboratory, and remained at Caltech for 22 years. He adhered to the belief in a small, select institution that offered excellence in education. During his administration, however, Caltech did expand. The 30-acre campus grew to 80 acres. The total of endowment increased from \$17 million to more than \$100 million. The faculty of 250 became 550. The number of campus buildings increased from 20 to 64, and the budget developed from a little less than \$8 million to \$30 million.

Nonetheless, DuBridge succeeded in keeping his concept of a small institution. Enrollment remained relatively stable. In 1946 the total number of students, graduate and undergraduate, was 1,391. When DuBridge left in 1968, the number was 1,492. Dr. Harold Brown became Caltech's president in 1969. A physicist who received his Ph.D. from Columbia, he had served as President Lyndon Johnson's Secretary of the Air Force in 1965. He arrived at the university after finishing his tenure in that position. Under Brown's management, six new campus buildings were dedicated. A major development campaign for \$130 million was in motion when he resigned in 1977 to become Secretary of Defense under President Jimmy Carter.

Appointed president by the board of trustees in 1978, Dr. Marvin L. Goldberger came to Caltech after finishing

an assignment at Princeton University, where he was the Joseph Henry Professor of Physics. Under the Goldberger administration, the institute added three new laboratories and received a \$70 million grant for construction of the W.M. Keck Observatory to house the Hale telescope, and a \$50 million pledge which would establish the Beckman Institute.

Meanwhile, distinguished psychobiologist Roger Sperry formed an important hypothesis about the left and right hemispheres of the brain. His studies led him to the conclusion that nature meant each area for different use. He reasoned that humans use the left side for analytical thinking and language, while they employ the right side for spatial-visual thought. Sperry's successful conclusions had immense impact on such fields as education, behavioral psychology, and neurophysiology. Sperry was awarded the Nobel Prize for physiology or medicine in 1981.

In 1986, scientists at Caltech created a computerized device called a Sequenator, which would become a primary tool for analysis of DNA (a group of nucleic acids, usually the basis of heredity). Commercialized by licensee Applied Biosystems in Foster City, California, the device's accuracy was reportedly close to 99 percent per single strand of DNA. When both strands are sequenced, the error rate is lowered from 1 percent to .01 percent. The Sequenator's price tag of \$90,000 caused Applied Biosystems to concoct a greater amount of gel that would allow 16 samples to be tested at once. Two years later, chemists, engineers, and computer programmers would team up with biologist Leroy Hood to successfully decode the structure of DNA molecules.

Another 1986 event was the honor accorded John Whitney Sr. by the Academy of Motion Pictures Arts and Sciences for "cinematic pioneering." Whitney developed some of the fundamental techniques for state-of-the-art digital graphics. He also shared his methods with eager Caltech students, while working on an IBM research grant at the Institute in the 1960s and 1970s.

Thomas E. Everhart came to Caltech in 1987 from his post as chancellor at the University of Illinois. Everhart won recognition for his work in the development of electron microscopy and his research on electron beams as applied to the analysis and fabrication of semiconductors.

In an effort to lift the field of medicine to greater heights, a Caltech team of scientists, led by Joel Burdick, created a five-meter metallic snake. Excitement spread through the medical world in 1994 about Burdick's vision of an eight mm version of this worm which would work its way through a patient's small intestine in search of cancer.

By staying true to DuBridge's vision, Caltech has managed to stay small and selective. Prospective and established scientists find it hard to resist the combination of a palm-bordered campus, celebrated strides in technology and science, plus a certain "nerdy playfulness."

Moreover, because of its productivity and prestige, the institute has harvested a steady flow of gifts for buildings, endowments, and current operations. Caltech has its pick of teachers and scholars. Today, the California Institute of Technology claims that more of its graduates will earn Ph.D.s in engineering and science than those from any other college in the country.

**Further Reading:** Although there are no histories of the institute, the environment in which it was created is portrayed

in *The Letters of Theodore Roosevelt* (Cambridge, Massachusetts: Harvard University Press, 1951); Roosevelt's letters show the accelerated industrial movement in the United States during the early 1900s and the consequent need for advanced technology. *Voyage to Jupiter* by David Morrison and Jane Samz (Washington, D.C.: Scientific and Technical Information Branch, NASA, 1980) provides a detailed account of the space program at Caltech's Jet Propulsion Laboratory.

—Laura Sutliff

# CASE WESTERN RESERVE UNIVERSITY

## (Cleveland, Ohio, U.S.A.)

<b>Location:</b>	In Cleveland's University Circle, about four miles east of the downtown area.
<b>Description:</b>	A private liberal arts university with approximately 9,500 students in graduate and undergraduate schools.
<b>Information:</b>	Case Western Reserve University Office of University Communication 10900 Euclid Avenue Cleveland, OH 44106-7017 U.S.A. (216) 368-4441

The history of Case Western Reserve University is actually the history of two separate schools that joined in 1967, now centered in the 500-acre park and cultural area of Cleveland known as University Circle. Before federation, the two schools, though adjacent geographically, had different educational focuses; Case Institute of Technology was primarily an engineering and science school, and Western Reserve University was a liberal arts and professional school.

Western Reserve College opened in the fall of 1826 with one tutor and three students in Tallmadge, Ohio, ten miles south of Hudson, where the school's first building was under construction. The following year in Hudson, another tutor undertook the instruction of the three returning students, two new freshmen, and seventeen others in the preparatory school. Because there were no public high schools at that time, preparatory schools ensured a number of freshmen for the college.

Western Reserve College awarded degrees to its first graduating class in August 1830. By then, the faculty had grown to include four professors and one tutor, and three buildings. Later the same year, Charles Backus Storrs became the school's first president.

Under Storrs, Western Reserve College became known as a major center of abolitionism, and several African-American students were accepted at both the preparatory school and college from the 1830s. Students and faculty frequently debated abolition versus colonization instead of scheduled lessons. Professors often absented themselves to give talks in neighboring towns; when they were on campus, professors lectured on abolition rather than their assigned courses. Students neglected their studies in favor of the crusade, many of them also lecturing in favor of abolition. This clearly affected the educational role of

the college, leading to a crisis between the faculty and board of trustees. After Storrs died (from consumption caught reportedly during an anti-slavery meeting) in 1834, he was considered a martyr by many, in spite of the damage to the college under his leadership. The Quaker poet John Greenleaf Whittier wrote a poem calling Storrs the "first martyr of abolition."

George Edmond Pierce, a former instructor at Yale, became the new president in March 1834. During the 21 years of his administration, the quality as well as quantity of faculty and students increased dramatically. Most importantly, Pierce developed a new emphasis on science in a curriculum superior to any western college of the time.

The school's reputation greatly improved under Pierce's tenure, but its financial situation grew worse. A temporary solution was found in 1843; the newly formed Society for the Promotion of Collegiate and Theological Education in the West gave Western Reserve College a \$6,000 grant and annual supplements lasting until 1849, when the society prematurely pronounced the school able to get along without further aid. Tuition and donations failed to meet the operating expenses of the expanding college.

Financial problems continued, though by the mid-1840s, the college had a good academic reputation. In 1850, Pierce was accused of misusing funds of Western Reserve's endowment. Years earlier trustees had allowed repeated borrowing from permanent funds to pay faculty salaries; now the faculty was in an uproar because Pierce had borrowed to repay a loan from an eastern creditor. The ensuing crisis eventually led to his resignation.

Pierce's successor was Henry Lawrence Hitchcock, a native of Western Reserve, who served for 16 years, from 1855 to 1871. During Hitchcock's tenure as president, new trustees appointed to the board were wealthy men prominent in city churches and metropolitan business centers. Hitchcock also worked to recover more than \$43,000 in outstanding subscriptions. Within three years the persistent president had decreased outstanding pledges to just \$8,000. Much of the promised subscriptions was in rural land that either was sold for cash or used for rental income.

Nine years after Hitchcock became president, in 1864, the school's debt was cleared for the first time. In addition, he succeeded in adding science to the school's curricula, even though a Bachelor of Science degree program, which granted its first degree in 1857, had failed. To implement the instruction in science, Hitchcock persuaded Charles Augustus Young and Edward Williams Morley to join





*Case Western Reserve University*

Western Reserve's faculty. Both were brilliant scholars who had left the ministry for science and who ultimately achieved international renown in their fields.

During the Civil War only a few students volunteered, but students and some faculty members formed a company under the tutelage of an army officer. In 1863, the company at Western Reserve served as guards in a prison for Confederate soldiers for four months.

In 1870, following Hitchcock's resignation, Carroll Cutler became acting president. A dedicated professor from the school's own faculty, he agreed to accept the post for a short period during the search for a new president. At the end of four years, he resigned, only to be persuaded by trustees to stay on, when they could find no suitable candidate.

Cutler maintained a good faculty and liberalized the curriculum, emphasizing modern languages, science, and

mathematics. He supported the admission of African Americans and women to the college. However, he was not adept in dealing with financial matters and Western Reserve again was confronted with a deficit and the inability to pay the faculty on time.

Western Reserve had been the only college in northern Ohio for years. Competition from other schools for both students and money soon increased around the Hudson area. By 1872 attendance at Western Reserve was down significantly and the school again suffered financial problems. Moving the school to Cleveland seemed a viable option; not only would such a move join the existing undergraduate college with the medical department in Cleveland, but the growing city had only one other college, the Case School of Applied Science, which would not compete with the liberal arts program offered at Western Reserve.

Funding for the move came from Amasa Stone, a millionaire and friend of Abraham Lincoln and Cornelius Vanderbilt. He donated \$500,000 at the time of the move and in his will left another \$100,000 to the school. Strings were attached to his gifts, however. Stone dictated that the new campus be located close to the Case School of Applied Science and that he be allowed to name 11 trustees for the new school. He insisted that the trustees name it Adelbert College (in honor of his dead son).

After the move to Cleveland, President Cutler continued to be an enthusiastic supporter of the right of women to be educated at Adelbert College, an extremely unpopular position. In his inaugural address in 1872, Cutler said, "If any woman thirsting for knowledge should seek it at this fountain, she should not be refused merely because she was a woman." Women, he decided, would be admitted to the college under the same conditions as men. During the 1870s, about four percent of the student body in Hudson was female; by the 1880s women represented more than 30 percent of the school's enrollment in Cleveland.

In 1884 a confrontation erupted between Cutler and the faculty over Cutler's policy. His plea to the trustees won over enough of them so that women remained part of the college, renamed Western Reserve University in 1882. But he had lost a great deal of popular support and, in 1886, resigned.

Hiram Collins Haydn served as president from 1887 to 1890. He was the first to be chosen directly from the board of trustees, of which he had been a member for 39 years. It was a temporary presidency and all concerned knew it. Haydn's brief tenure would be mainly remembered as the period during which the first gymnasium for men was built and the admission of women at the college ended abruptly, two months after his inauguration.

In 1888, Haydn presided over the opening of the College for Women, with 14 students and 10 members of the university's faculty (who received no additional pay for these duties). Funded in part by the wife of Amasa Stone, the school was located in a farmhouse at Euclid and Adelbert roads (now the site of the Allen Memorial Library). The most generous early supporters of the new school for women were Flora Stone Mather and Mrs. James F. Clark. Thanks to their efforts, the College for Women continued to grow; its enrollment over the years actually was greater at times than that of its male counterpart. Often, professors at Western Reserve allowed women into their classes. (By the middle of the twentieth century, only physical education classes were divided by gender.)

In 1890, Charles Franklin Thwing became president of Western Reserve, serving for 31 years. When he took office, the university had 246 students and 37 faculty members; when he resigned in 1921, students numbered more than 2,000 and faculty 415. The physical site of the university increased from 4 buildings to 22, and the annual budget from \$100,000 to \$700,000. He accomplished all of this on a tight budget, refusing to operate at a deficit.

In spite of his popularity with students and his skillful fiscal management, Thwing was pressured into resigning in 1921. During the last years of his tenure, his stature had been diminished by a number of issues, including conflicts over faculty salaries, his insistence on a strict classical curriculum, and a suspect appointment to the newly endowed chair of professor of religious education.

Thwing's successor, Robert Ernest Vinson of South Carolina held the post for ten years, beginning in 1923; his tenure was most notable for the creation of Cleveland College, an undergraduate school of management offering both credit and non-credit courses to adults. It opened in the fall of 1925, using laboratories of both Case and Western Reserve during evening hours and relying on members of both faculties. Newton D. Baker, one of the new school's founders, persuaded Ellen Scripps—a journalist and philanthropist from California—to donate \$25,000 to endow the school. On her death, she bequeathed another \$50,000 to Cleveland College.

In 1933 Winfred George Leutner succeeded Vinson as Reserve's president. He continued the austerity measures of Vinson, thereby managing to keep Reserve itself afloat through the Depression. During World War II, Reserve provided training for various branches of the service, including the Army Air Corps and the Provost General's office. Sums paid by the government for all this military training were substantial, allowing the school to show a small surplus from 1941 through 1945. The influx of veterans on the G.I. Bill extended the period of prosperity for the entire university system through 1947.

During both the Great Depression and World War II, student enrollment was down considerably and the college suffered financially. It was almost closed at one point, and its success rate continued and fluctuated over the years. From 1946 to 1947, more than 12,000 students attended the school, over 5,000 of them veterans on the G.I. Bill and 3,000 full time. At the time, Cleveland College was Western Reserve's largest school in terms of enrollment, course offerings, and faculty.

When veterans began to disappear from Cleveland College, its glory days ended. Deficits increased once again and the student body shrank dramatically. Competition further depleted dwindling enrollment. By the 1950s, many schools offered similar adult-education programs, often at lower tuition. In 1953, Cleveland College President John Millis, convinced that the school was a losing proposition, suggested that the school move to University Circle, with several smaller extension centers based in the city's high schools. Opposition to the move was intensive and the school continued to decline in enrollment and importance. In 1973 Cleveland College was closed.

At the same time that Western Reserve was establishing itself as a liberal arts university, the Case School of Applied Science developed as a technological institution. In 1877, Leonard Case Jr. donated property in the center of Cleveland. In the deed for the new school, Case stipu-



lated the teaching of "mathematics, physics, engineering mechanical and civil, chemistry, economic geology, mining and metallurgy, natural history, drawing, and modern languages." The school opened in the red-brick building in which the Case family had lived since 1856.

John Nelson Stockwell, a Western Reserve professor who had been engaged to teach mathematics and astronomy, acted as unofficial president, formulating a curriculum, buying equipment, establishing laboratories, and hiring a small faculty. One member of that group, Albert Abraham Michelson, hired to teach physics, went on to renown for his studies of the properties of light. In 1887 Michelson worked with Edward Williams Morley of Western Reserve in an experiment regarding the speed of light. Their findings were significant enough that some claimed that modern physics developed in University Circle in 1887.

In the 80 years between its founding and the union with Western Reserve, Case had four presidents. Cady Staley, a professor of civil engineering, was the first president, from 1886 to 1902. Case previously had outgrown its downtown facility and in 1882 moved to what would become University Circle. The first classes were held in the new building in September 1885, even though construction was still underway. Soon after Staley had assumed his post, fire gutted the new building. Classes quickly resumed in Western Reserve classrooms, a temporary union of the two schools which lasted for two years. The first two floors of the burned building were restored by 1888, but it was not until 1892 that all construction was completed.

During Staley's presidency the school's population increased from 7 teachers and 44 students to a faculty of 21 and 353 students. The civil engineering program grew to include mechanical, electrical, and mining engineering, plus labs for chemistry.

Staley's successor, Charles Sumner Howe, who had been a professor at Case for 13 years, became president in 1902. He guided the school through the years of World War I, when it served as a base for the Student Army Training Corps. That program benefited Case's finances enormously, but was an academic failure, largely because of the scholastic ineptitude of the officers in charge.

Even though a fence separated the two campuses from the time of Western Reserve's move to Cleveland, a spirit of friendly cooperation existed between them. Over the years, however, each viewed the other with disdain, and confrontations between student bodies were not unheard of. Nonetheless, a commission was appointed to study the possibility of uniting the two schools. Its report was published in 1925, recommending formation of a "Greater University." Committees met, letters flew back and forth, but little came of all the discussion.

During Howe's long tenure at Case, faculty development, student enrollment, and new buildings increased the institute's stature. Howe was able to convince several wealthy men to donate buildings, one to endow a physics

chair, and even persuaded John D. Rockefeller, a Cleveland resident, to put up the money for buildings to house schools of physics and metallurgy and mining.

After Howe retired, William Elgin Wickenden became president in 1930. One of his first acts was to propose a union of Case and Western. For several months rumors flew about the pending merger. However, the Great Depression scuttled these hopes, as the schools had to scale back rather than grow. Wickenden did manage, however, to introduce a program of graduate studies, upgrade the educational background of the faculty, and emphasize the importance of the humanities in engineering training. He continually worked toward his belief that engineers must be aware of how their work would affect humankind.

During World War II, Case was chosen as the setting for training naval officers, called the V-12 program, the only one in Ohio. It also became the site of study programs to train women to work for the U.S. Army Signal Corps in the aircraft radio laboratory. A few women entered as undergraduates, too, but that opportunity ended soon after the war. (In 1959 acting president Kent Smith announced that Case Institute would open its doors to undergraduate women. The need for the United States to keep pace with Russia's space accomplishments was seen as the reason for this change of an 80-year tradition.)

By judicious management, Wickenden was able to keep Case operating on a balanced budget until the end of World War II, when G.I.s flooded the school. Wickenden retired in 1947, but not before he had succeeded in changing the name of the institution to Case Institute of Technology.

Thomas Keith Glennan was president of Case from 1948 to 1966, when talk of federation with Western Reserve arose once again. John S. Millis was then president of Western Reserve. Millis and Glennan became collaborators; in 1950 the two schools shared one health service and by 1957 they shared athletic facilities. Reserve students began to study astronomy at Case, while Case students took geology at Reserve. Similar trading of instruction began for foreign languages and several sciences. Grants from the Carnegie Corporation, the National Institutes of Health, and the U.S. Public Health Service funded still more cooperative programs.

In 1965, the two presidents agreed that it was time for their colleges to unite. A special commission was formed—funded by the Carnegie Corporation—to study the feasibility of the union. In 1966, after a year of investigation, the commission recommended that the trustees of both institutions create a federated Case Western Reserve University with one board and one president. Rivalry between the two schools was high and opposition to the union was strong. Nonetheless, the trustees approved the union and on July 1, 1967, the merged school came to life under a board of trustees comprising 15 members from each institution.

Just before the federation was completed, Glennan retired, leaving Robert Warren Morse to take over as



president of Case; subsequently, he became the first president of Case Western Reserve University. Like so many others before him, Morse had to cope with operating deficits, which by 1971 totaled more than \$4 million a year. He resigned because of unresolved differences over the deficits with the trustees.

Louis Adelbert Toepfer stepped in to fill the post until a permanent president could be found. In the spring of 1971 he agreed to accept the permanent post. He attacked the university's problems—including the budget—immediately, overseeing reduction in expenditures and increased fundraising. By 1973 he had the institution operating within its budget.

Through its history, Case Western Reserve University has tried several ways to educate undergraduate men and women. In 1971 it became coeducational once again. Indeed, the first woman to be appointed a federal judge, Florence E. Allen, was educated at Western Reserve.

Over the years, Case Western Reserve University has developed a wide range of traditions that celebrate life in the institution. The annual address by the president on the state of the university is one; others include the faculty-staff talent show and the Hudson Relays, a 26-mile relay between undergraduate classes to commemorate Western Reserve's move from Hudson to the present campus.

**Further Reading:** C.H. Cramer's *Case Western Reserve: A History of the University, 1826–1976* (Boston: Little Brown, 1976) presents a detailed account of the first 150 years. The school publication *Case Western Reserve University, Institutional Profile* is also helpful and informative.

—Ruth Pittman

# CHARLES UNIVERSITY

## (Prague, Czech Republic)

<b>Location:</b>	In Prague, capital of the Czech Republic in Central Europe. Faculty buildings, schools, and institutions of the university are located in various areas of greater Prague, around the "Carolinum" in the Old Town.
<b>Description:</b>	The earliest institution of higher learning in Central Europe, founded in 1348. Today the coeducational Czech-run university enrolls 30,000 students in 13 faculties or schools with a teaching staff of 3,000, and offers absolvent, graduate, and doctoral degrees.
<b>Information:</b>	Note that English speakers may be difficult to reach. Univerzita Karlova (Charles University) 116 36 Prague 1 Ovocny trh 5 Czech Republic (2) 228-441/8

Charles University was founded April 7, 1348, by Charles IV, then Holy Roman Emperor and king of Bohemia, as part of his plan to make Prague (Praha) a center for culture and a formidable capital of the Holy Roman Empire. Born in Prague in 1316, Charles was raised in Paris at the court of his uncle, the king of France, where he changed his Czech first name from "Vaclav" (Wenceslas) to the more easily pronounced "Charles" (after his hero, Charlemagne). Well-educated, according to the French *studium generale*, Charles studied with Pierre Roger, the future Pope Clement VI. This alliance would be both important and fateful for the history of Prague and the university. (A note about the university's name. At its inception it was *Pragensis studii*, a *studium generale*, as were Paris and Bologna. Since it was located in Bohemia, it would have had a Slavic name, *Univerzitas Praha*, but, out of respect for its founder, it would also have been referred to as *Univerzitas Karlovy*. Today it is officially *Univerzita Karlova*, Charles University.)

As early as 1344, while his father, John of Luxembourg, was off fighting his many crusades, Charles, as temporary ruler of Bohemia, persuaded the pope to elevate the bishopric of Prague to an archbishopric. Through Charles' influence, Ernest of Padubic, a friend and member of a noble old Bohemian family, was chosen the first archbishop of Prague; Charles then appointed Ernest first chancellor of the new University of Prague.

The university began as an institution of the Catholic Church. Charles ordered Czech-language Bibles, produced by copyists at the archbishop's residence, and distributed them to convents throughout the country. Latin legends and meditations were also translated into Czech. The university, according to decree, was to bring Bohemia "the fruits of learning set out on its own table."

At a meeting of the Bohemian Estates (nobles) at Prague in 1348, Charles declared:

One of our greatest endeavors is that Bohemia . . . should, through our action, be adorned by a great number of learned men; thus will the faithful inhabitants . . . who incessantly thirst for the fruits of learning, be no longer obliged to beg for foreign alms . . . thus will the natural sagacity of their minds move them to become cultured by the possession of knowledge.

Modeling his new university on the University of Paris, Charles intended that it serve the entire continent, not simply Prague. A papal bull confirming the founding of the university states that it shall be "for all inhabitants of the Kingdom and the surrounding countries, and for the students of all nations." Pope Clement VI agreed that it should be, as in Bologna and in Paris, a *studium generale* with a renowned faculty. Law professors were given incentives to come from Bologna, and art professors came from Paris. Bachelor candidates were required to study at Paris and Oxford for long semesters, to take note of what learned scholars taught there.

Charles built a fortified "new city" (*Nové Mesto*) on the right bank of the Vltava River (also called the Moldau) to accommodate the influx of students and new citizens, and endowed the university with all privileges granted older European universities in "royal" cities. Students were divided into "nations" according to their nationality: Bohemian (including Germans living in Bohemia and Hungarians), Polish, Bavarian, and Saxon, each electing members to the general council of the university. The *universitas* of *magisters*, *baccalaurei*, and students elected the rector.

No special buildings were erected for the university. Many professors lectured in their own apartments; the five professors of the theological faculty taught in religious buildings (one professor at St. Vitus's Cathedral, and four monks at their own monasteries). With the scholarly language of instruction being Latin, the university was, at first, a classical university, without a German or Czech character.



*Charles University*

Benes of Weitmil, an early historian, wrote:

The University (studium) became so great that nothing equal to it existed in all Germany; students came from . . . England, France, Lombardy, Poland, and all the surrounding countries, sons of nobles and princes, and prelates of the Church from all parts of the world.

More than a thousand students enrolled in the first few years, ushering in Prague's "golden age." Charles was active and interested in the university and often attended "disputations" (debates) which, according to medieval custom, took place there. He bought "the house of the Jew, Lazarus," in the Old Town (*Staré Město*), to serve as a dormitory and as classrooms for 12 professors; he also gifted them with a library. After his death, this institution was transferred to the Carolinum, which his son Wenceslas VI bought for the university from the Rotlev family. All that remains of the original Gothic Carolinum is an arbor and the oriel window created by the Parler school. Official ceremonies are still held there.

Events leading to the Hussite movement can be traced to the university; disputations at the Carolinum galvanized the Czech people, the "Pragers," certain clergymen, and students against the practices of the established Catholic Church.

In 1401, an army led by the Margrave of Meissen

entered and devastated much of Bohemia and then entered Prague. The citizens (some German-born Czechs), who had not known war for more than a 100 years (spared the 100 Years' War of western Europe), were terrified and incredulous at the German cruelties. It was then that a young preacher, Jan Hus, later rector of the university, first spoke to his countrymen at a sermon in the Bethlehem Chapel. Hus told Bohemians they were "more wretched than dogs or snakes, for a dog defends the couch on which he lies, and if another dog tries to drive him away, he fights with him, and a snake does the same; but us the Germans oppress without resistance."

Hus's fortunes became entwined with those of one of the university's masters. Wenceslas IV (his forebear was Wenceslas I, the sainted "Good King Wenceslas") became unable to control his violent temper in later years; according to legend, he ordered priest John of Nepomuk, a master at the University of Prague and the queen's confessor, to divulge her confessions. Nepomuk refused, and, even though tortured by Wenceslas's henchmen in a dungeon, would not betray his calling. Nepomuk has been revered as a martyr and saint throughout Czech history. The "truer" story might be that Nepomuk represented the archbishop in a dispute against the king who was tolerant of (or apathetic to) the emerging Hussites. Most sources agree that Nepomuk became a saint and legend due to the Counter-Reformation Church's attempt to neutralize the martyrdom of the Czechs' "here-



tic saint"—Jan Hus, the first Czech rector of the University of Prague, whose execution aroused nationalistic passions, and caused the country 20 years of civil war.

Hus, born in 1369 or 1371, studied at a local school in Husenic in southern Bohemia, went on to Charles University from which he was graduated in 1396 with a master of liberal arts degree, and where he was appointed *ordinus* professor in 1398. He became dean of the faculty of arts at the age of 33, and was ordained in 1400. He then became rector of the university. Preaching from the simple Bethlehem Chapel and teaching at the university, Hus was in accord with the ideas of English reformer John Wycliffe against the excesses of the clergy, ideas brought into Prague through Wenceslas's association with the court of England. (His sister Anne had married English king Richard II.)

Others had laid the nationalistic groundwork by preaching in the native language of Bohemia; Hus went further, writing his sermons on the walls of Bethlehem Chapel, educating the common people to spell and read the Czech language, which he helped to modernize and elevate. At first Hus worked within the established church, seeking internal reform. The first disputes between Hus and his ecclesiastical superiors occurred in May 1403 at a meeting of the university at the Carolinum. Forty-five articles taken from the writings of Wycliffe were declared heretical by the church; they forbade members of the university to circulate them. Hus, a superior debater, proved that some statements as interpreted by the church were not in Wycliffe's writings. A new archbishop, Zbynek Zajic, seemed to bring peace among the clergy for a time. Hus called priests who took money for church functions heretics; he insisted, in letters to his superiors, that priests should be left to preach a simpler, purer Christianity. In addition, he doubted the infallibility of the pope. Hus was excommunicated for his beliefs.

Hus also made the citizens wary of the Germanizing influence of the church. At first, Wenceslas took Hus's side. In January 1409 he issued the Decrees of Kutna Hora (Kuttenberg) which secured supremacy of the Bohemian Nation at the university; 5,000 German students and professors, who were in the majority, left the university in protest, although some German-speaking theologians supported Hus. The Czech citizens were happy to see the German students leave.

Nationalism was aroused; Wycliffe's books were burned in the courtyard of Archbishop Zbynek's palace on July 15, 1410; the university was summoned to a meeting at the Carolinum to debate the issue of paying for the pope's crusade against the king of Naples with indulgence money extracted from "the faithful." Hus argued defiantly against this use of church funds. By 1412, Hus was forced to leave Prague, banned from the university by the church. He preached in the countryside and published his *De ecclesia*—reflections of his doctrines—although excommunicated.

Sigismund (Wenceslas's brother) was elected emperor in 1411. Sigismund offered Hus "safe passage" to the Council of Constance in November 1414, where he could "come unmolested to Constance, there have free audience, and return unharmed, should he not submit to the authority of the council." Hus was imprisoned when he arrived, did not renounce his doctrines, and was burned at the stake as a heretic on July 6, 1415. A civil war known as the Hussite Wars erupted and lasted for 30 years.

The Estates (Nobles) of Bohemia and Moravia addressing the Council of Constance by letter declared Hus their spiritual mentor, pledging themselves to religious liberty, and obedience to the pope and the bishops of Bohemia so long as they adhered to scripture; they further recognized the University of Prague as authority on all matters of doctrine—giving the university the important position of arbiter of doctrine during the Hussite War.

After many skirmishes between religious factions, citizens and Hussite university members gathered on April 3, 1420, at which time the Utraquist faith (both wine and bread at communion: *sub utraque specie* for everyone, not only priests) was fervently adopted. The protest went against the established Catholic Church, which followers felt incited the German race against the Slavs.

Counter-Reformation attacks plagued Bohemia; the university all but ceased to exist. Even after leadership passed to Ferdinand von Hapsbourg, who became Holy Roman Emperor in 1556, Catholicism remained the minority religion, despite Ferdinand's policy of religious tolerance and his founding of another Catholic university (the Clementinum) in Prague, when Jesuits returned to teach there.

Two Catholic nobles were thrown from the window of Prague Castle in 1618, precipitating the Thirty Years War and further internal hostility. Soon after the ultimate defeat of the Bohemian Estate, Hussite leaders, including Jessenius, the rector of the University of Prague, and important townsmen were arrested. Ferdinand decreed the confiscation of the Estates' property; of the 27 death penalties called for, 24 people were to be decapitated, 3 hanged. The tongue of Jessenius was cut out before his execution on June 21, 1621. The heads of the nobles were impaled on the bridge towers. This terror, and the consequences of the Thirty Years War, resulted in the re-Catholicization of Bohemia and the University of Prague. Under the Jesuits, the arts faculty—the only remaining one of Charles' original university after the Hussite wars—and the Jesuit Clementinum academy were integrated into a single university: Charles-Ferdinand University.

By the end of the eighteenth century, German education, government, literature, and society in general superseded the Czech; that language and culture all but disappeared.

Non-Catholics were allowed to enter the university under the "enlightened" Joseph II, son of Maria Theresa of Austria, with the expulsion of the Jesuits in 1773.

Joseph also allowed German Calvinism and Lutheranism into Bohemia, using the German language to centralize and strengthen the empire. Hussitism was not allowed to resurface, a precaution against the resurgence of Czech nationalism.

After Joseph II's death in 1791, a chair of Czech language and literature was established at the university. The children of farmers and artisans, with increasing education, brought their language, legends, and national consciousness to the bourgeois class; the German-speaking Bohemian nobles, on the other hand, had allegiances to the German aristocracy and government through marriage and power.

A new national sense erupted, not led by the nobles, but by the people, and nationalism throughout the nineteenth and twentieth centuries was a democratic movement based strongly on language revival. Philologists Josef Dubrovsky and Josef Jungmann were the most prominent in this linguistic renaissance. They wrote Czech-language histories and the first Czech dictionary. Frátišek Palacký, a Protestant Moravian, wrote the first history of the Czech nation, first in German, then in Czech.

In 1848, the year of several European revolutions, the university was in the midst of national, democratic, revolutionary upheaval; democratic students were repressed under Minister Bach after an incident which broke out at the pan-Slavic Conference, causing a week of violent street fights.

The second half of the nineteenth century, with its upsurge in Czech national life, forced the Vienna government in 1882 to divide the university into two separate institutions, one German, one Czech. Each university had its own faculties, libraries, clinics, and observatories. The Germans had inherited astronomical instruments once used by Johannes Kepler; the Czechs got the equipment of Dutch astronomer Tycho Brahe. Both men had lived at Hradčany Castle during the reign of Rudolph II. Joseph Wechsberg writes of his days in Prague during the 1920s: "As a student of the German University, I didn't know for over a year where the Czech University was." The two universities existed separately in Prague until 1939.

Franz Kafka, born in Prague, studied law at the German University, graduating in 1906 at the Gothic chapel of the Carolinum. The Kinsky Palais, built between 1755 and 1765, housed the German school Kafka attended, in the shadow of the Orloj, the astronomical clock tower finished by Hanus Ruze, an Utraquist professor at Charles University in 1480. Kafka, although largely unknown to the Czech people in his youth, lived in the large Jewish ghetto and, though he wrote in perfect German, he captured the soul of Prague. His classmates were philosopher Emil Utitz and Hugo Berman, later rector of the University of Jerusalem.

During the days of the First Czechoslovak Republic (1918), Charles University was represented by the leaders of the new state: Presidents Thomas Garrigue Masaryk

and Eduard Benes were on the pre-war faculty. Thus, the intelligentsia were involved in the people's government.

On November 17, 1939, Charles University was forcibly closed by the invading Nazi military. After demonstrations, many students were executed and teachers persecuted. Jewish students and professors were interned in the Terezín (Theresienstadt) concentration camp after the arrival of SS officer Reinhard Heydrich in 1941; more were interned after his assassination by the resistance in June 1942. Acts of resistance by students and citizens were paralyzed until 1945.

Czechoslovakia (Czech and Slovak people united by Masaryk's government) was liberated by Russia on May 9, 1945. The German University of the Reich was abolished, and the university developed as a Soviet institution, where the study of sociology became a non-subject. The last philosophy lectures during that period were delivered in 1949 and 1950; the course was replaced by one in Marxist "historical materialism." By 1956, and after Polish influence, the interest in re-introducing sociology to the curriculum was gradually broached. In 1964, professor of philosophy L. Svoboda initiated a sociological section of the Philosophy Department at Charles University with irregular lectures. Regular courses began in 1965.

After student riots in 1968 (called the Prague Spring), Communist Party leader Alexander Dubček sought "socialism with a human face," as students tried to hold back Russian tanks in protest and university student Jan Palack set himself on fire in Wenceslas Square in an ultimate protest. After the strikes, protests, and ousting of the Soviet government (called the Velvet Revolution, in which university students again played a leading role) in 1989, the Czech Republic elected Václav Havel, a playwright, as its president, and Charles University entered another state of flux within an uncertain national future.

**Further Reading:** Joseph Wechsberg's *Prague: The Mystical City* (New York: Macmillan, 1971) provides a wealth of detail about the history of early Prague, the university, and the author's reminiscences as a student of Prague's German University in the 1920s. Remarkable accounts of the university and its historical and social importance in Prague and in Europe—prior to this century—can be found in the illustrated copies of Count Lützow's *The Story of Prague* (1902), and in R.H. Vickers's *History of Bohemia* (1894). For later historical facts about the university, Samuel Harrison Thomson's *Czechoslovakia in European History* (Princeton, New Jersey: Princeton University Press, 1943), and Vladimir V. Kusin's *The Intellectual Origins of Prague Spring* (Cambridge: Cambridge University Press, 1971) are helpful, as are *Insight Guides: Czech and Slovak Republics* by Alfred Horn (Hong Kong: APA, 1993) and Rob Humphrey's *Rough Guide Series: The Czech and Slovak Republics*, 2nd edition (London: Rough Guides, 1993).



# CHINESE UNIVERSITY OF HONG KONG

## (New Territories, Hong Kong)

<b>Location:</b>	The New Territories region of Hong Kong.
<b>Description:</b>	Incorporated in 1963, the Chinese University of Hong Kong is a bilingual (Chinese and English) and bicultural institution of higher learning.
<b>Information:</b>	Admissions Section The Chinese University of Hong Kong Shatin, New Territories Hong Kong 2609 8947 and 2609 8951

Since its inception in 1963, the Chinese University of Hong Kong has grown from a struggling institution to one with more than 11,000 students and 3,500 staff members. Today, as an institution offering instruction in two languages, Chinese and English, the Chinese University is a self-governing corporation that, through its academic services and research activities, has played a key role in Hong Kong's recent development. The university has its origins in the 1940s when three post-secondary colleges—New Asia, Chung Chi, and United—were founded as private colleges to handle the flood of refugees fleeing mainland China after the Communists gained control of the country. The refugees included a number of scholars who took on the responsibility to educate the exiled young. The so-called refugee colleges (more than 30 were established) were primitive in design, poor in resources, and dependent upon rented facilities for their operation. Most offered short courses of instruction, ranging from two months to two years in duration; none offered four-year programs in arts and commerce.

New Asia College was founded in 1949 by noted scholars Chi'ien Mu and Tsui Shu-chin as a means to preserve traditional Chinese culture while balancing it with western learning. Initially, the college offered evening classes in Chinese history, economics, literature, philosophy, and political science. From the beginning, the institution faced serious financial difficulty and instability. Tsui Shu-chin left Hong Kong for Taipei, and a major financial supporter, Arthur C. Wang, an architect from Shanghai who founded a construction company in Hong Kong, declared bankruptcy. The situation became so desperate, in fact, that the college's teachers could not depend upon a regular salary and were forced to find additional work, primarily freelancing for local newspapers and magazines, to supplement their income. Further-

more, the government gave no grants for tuition to New Asia College students, so many students, unable to afford an education, had to withdraw from the college, a development that accounts for the struggling institution's small enrollment in its early years.

Chung Chi, which literally means "Reverence for Christ," was founded in 1951, also by refugee educators and scholars from the mainland, who wanted to continue their educational work in Hong Kong. Unlike New Asia College, the path to the establishment for Chung Chi was less difficult. The institution received the support of various Christian churches and missionary organizations, which wanted an institution of higher learning that would be Christian and Chinese, and that could also serve as a university for secondary school students who were not admitted to Hong Kong University. The supporting organizations included the Anglican Church, the United Kingdom-based Association of Chinese Christian Universities, and the U.S.-based Lingnan University Foundation. Key figures in the college's founding included the Reverend R.O. Hall, bishop of the Hong Kong Anglican Church; Lu Ying-lin, former president of Lingnan University; and Au Wei-Kuo (David W.K. Au), the former council chairman of St. John's University of Shanghai.

Initially, Chung Chi College offered only evening classes, but in 1952 the college instituted a four-year program. A year later, the college had four departments: foreign languages, Chinese language, economics and business administration, and sociology and education.

The period from 1953 to 1956 was a difficult one for Chung Chi and New Asia College, involving a constant struggle for funds. Fortunately, support from a number of international organizations allowed the colleges to survive. After numerous requests by Chung Chi College to be made a part of the Hong Kong education system were turned away, Bishop Hall took the matter directly to the Hong Kong governor, Sir Alexander Grantham. Hall's persistence paid off, and in June 1953 Chung Chi was accepted into the Hong Kong educational system as a post-secondary college. By 1956 Chung Chi's fortunes began to change. The college moved onto the Ma Liu Shui campus, and the student body grew to more than 300 students, with 26 full-time and 34 part-time instructors.

New Asia College attracted the attention of the Yale-In-China-Association, which had left mainland China after the Communist takeover in 1949 and had since been looking for an Asian institution that could cooperate with its educational and medical work. Dr. Harry Rudin, an association representative, came to Hong Kong in 1953





*Chinese University of Hong Kong*

for a visit to the New Asia College campus. He was impressed after talking with administrators, including Chi'ien Mu, as well as faculty and students. Three decades after his visit, Rudin remembered

the reputation of Chi'ien Mu, his greater interest in education than in making money, the spirit of the students as it became apparent at the graduation ceremonies I attended, and the admiration and affection that the faculty had for their leader, a loyalty of which I was made aware at a luncheon which was to acquaint me with the men working for Chi'ien Mu.

The final agreement signed between New Asia College and the Yale-In-China Association provided for a \$25,000 subsidy for the college and the promise that the association would help the institution find other sources of revenue for its building fund. The association's strong support, as well as the money received from other international organizations such as the Asia Foundation and the Harvard-Yenching Institute, helped end the college's

difficult financial period and put it on a stable course.

In 1956 five colleges—Wen Hua, Wah Kiu, Canton Overseas, Ping Jing, and Kwang Hsia—amalgamated into United College. Wen Hua and Kwang Hsia had their origins on mainland China as private universities that had established branch campuses in Hong Kong in the 1930s. Ping Jing and Wah Kiu began in Hong Kong.

The idea for the amalgamation came from Grayson Kirk, the president of Columbia University in New York City and an executive committee member of both the Asia Foundation and the Ford Foundation. When Kirk visited Hong Kong in 1956, representatives from the five colleges approached him to ask for financial assistance. Kirk suggested that the colleges would have a better chance of developing if they amalgamated and pooled their resources and efforts. The merger was officially announced in June 1956 and classes officially began the following October. The curriculum was practical, emphasizing courses such as accounting, journalism, banking, and sociology. There were 27 full-time and 59 part-time teachers and an enrollment of 70 students.

United College's early years were also marked by financial difficulty, for it had to depend upon tuition fees for support—a formidable challenge since many of the students came from poor refugee families. The Mencius Foundation Scholarship and the Taiwan-based Sun Scholarship provided some financial support, but faculty salaries remained low and the facilities were substandard.

Chung Chi, New Asia, and United faced a double-barreled problem in their relationships with the Hong Kong government. Hong Kong refused to recognize the colleges' graduation certificates while forcing them to adhere to the Education Ordinance of 1952, which was intended for the regulation of primary and secondary schools. In the late 1950s, the three colleges aggressively sought stronger support from the Hong Kong government. On August 16, 1956, Charles Long, the Yale-In-China representative at New Asia and a trustee of the college, sent a memorandum to D.J.S. Crozier, the Hong Kong government's director of education, recommending that the government provide support for the three colleges. The establishment of the Chinese Colleges Joint Council in February 1957 further strengthened the colleges' efforts to secure government support and recognition.

In 1959 the Hong Kong government announced its plan to set up a new university with Chinese as the primary language of instruction. The plan was put into play when money was made available that year for developing the curricula of United, Chung Chi, and New Asia colleges to the university level. The following year, the Hong Kong government stipulated post-secondary college ordinance and grants regulations that were designed to give financial support for the three colleges. Another step forward was taken in 1962 when the Hong Kong government established a commission under J.S. Fulton to study and consider how a Chinese university could be created. The following year, the Fulton Commission recommended the establishment of the Chinese University of Hong Kong. The government adopted the recommendations of the Fulton Commission and established a provisional council to oversee the university. Dr. Choh Ming Li was appointed the university's first vice chancellor.

Once founded, the university grew quickly. In 1964 it conferred the bachelor's degree for the first time. The following year, the university library and the school of education were established. Other major developments during the first decade of the university's existence include the establishment of the graduate school (1966), the Institute of Chinese Studies (1967), and the faculty of business administration (1974).

In 1975 the government of Hong Kong and the university chancellor appointed another commission to advise on the further development of the Chinese University. The following year, the commission published

its report, recommending that the university be reorganized. The boards of governors or trustees of the three founding colleges were dissolved, and a new, wholly integrated board was created from the combined teaching and administrative ranks.

During the next decade, the university continued to carry out curricular and administrative reforms. Among the important developments were the establishment of the department of anthropology in 1979, the faculty of medicine in 1981, and the department of psychology in 1982 and the offering, beginning in 1981, of a part-time degree program in the evenings for those students working full time. In January 1986, Sir Run Run Shaw, a long-time supporter and friend of the Chinese University, gave a gift of \$100 million (Hong Kong) to the institution, which it used to establish a fourth college, Shaw College. In 1988, Shaw College admitted its first students.

Today, more than three decades after its founding, the Chinese University of Hong Kong is a well-established institution whose students pursue a wide range of programs leading to bachelor and post-graduate degrees. There are seven faculties and 59 departments, and the university library has impressive holdings of more than 1.1 million volumes. The university has an international focus, maintaining faculty and student exchange programs with universities and centers of learning all over the world.

Even though the Chinese University has reflected the great change that Hong Kong has experienced in recent times, the university, says Alice N.H. Lun, author of a history of the institution, "has not forgotten its unique educational mission" because it has insisted on "the blending of Chinese and Western cultures, the blending of general educational and professional education, and the blending of teaching and research." As for the future, the historian predicts,

the Chinese University will continue to enkindle the spirit of blending Chinese and Western cultures, as well as keeping abreast with the times in order to continue serving Hong Kong, and encouraging the pursuit of learning so that greater developments can be hoped for in the future.

**Further Reading:** Alice N.H. Lun's *The Quest For Excellence: A History of the Chinese University of Hong Kong from 1963 to 1993* (Hong Kong: Chinese University Press, 1994) provides a comprehensive and interesting overview of the university's history and development from its origins to the present.

—Ron Chepesiuk



# THE CITADEL: THE MILITARY COLLEGE OF SOUTH CAROLINA

## (Charleston, South Carolina, U.S.A.)

- Location:** In northern Charleston, west of Interstate 26.
- Description:** A state-supported, comprehensive liberal arts college. Undergraduate enrollment of approximately 2,000 men and a small number of women, since the school became coeducational in 1996. Also a coeducational College of Graduate and Professional Studies with an enrollment of approximately 2,200.
- Information:** The Citadel  
171 Moultrie Street  
Charleston, SC 29409  
U.S.A.  
(803) 792-7842
- Visiting:** Visitors may arrange to tour the campus by calling the above number. The Citadel Museum is also open from 2 to 5 P.M. Sunday through Friday and 9 A.M. to 5 P.M. on Saturday.

The ritual for 150 years has been that every Friday afternoon, at precisely 3:45 P.M., a drumroll sounds on Summerrall Field in Charleston, South Carolina. Soon after, to the sound of 21 bagpipes, the 2,000 Citadel Corps cadets file in. The traditional Citadel tartan—blue with stripes of red and gold—lends a splash of color to the “Long Gray Line” of dress uniforms. Military pomp is worshipped here; silver sabers gleam, uniform trousers are sharply creased, shoes are brilliantly polished. Precision weapons drills are followed by the lowering of the American flag while “The Star-Spangled Banner” is rendered by the Citadel Military Band. The elite four-member Salute Gun Battery then carries the flag off the field.

Thus ends the weekly ceremony which brings together the city of Charleston and the Citadel, otherwise known as the Military College of South Carolina. One early Charlestonian explained the southerners’ unique fervor for military ceremony: “The nature of our institutions of domestic slavery and its exposure of us to hostile machinations . . . render it doubly incumbent on us . . . to cherish ■ military spirit and to diffuse military science among our people.” Indeed, Pat Conroy, a noted writer of fiction and the Citadel’s most forthcoming alumnus, expressed the common sentiment that “a Southern man is incomplete without a tenure under military rule.”

The Citadel is a unique place, and its history indelibly intertwined with the history and flavor of Charleston itself—the most southern of southern cities. Walter Fraser, a historian and a former professor at the Citadel, has said that more than any other institution, the Citadel reflects the cultural values of the Old South. Conroy observed in *The Lords of Discipline*—a very thinly veiled account of Citadel life—that it is difficult to imagine the Citadel existing in any other city; Charleston and the school have symbiotically shaped each other. Although officially chartered by the state legislature in 1842, the Citadel had its physical origins much earlier, when in 1780 the citizens of Charles Town erected a fortification or “rampart” around the city to protect against British invasion. Its philosophical origins, however, date from the early nineteenth century. In 1820 almost 60 percent of the Charleston population was black, mostly slaves, although there was a contingent of free blacks who clashed repeatedly with the Charleston city council. Abolitionist sympathies were increasing in the North, and rumors were rampant that the black A.M.E. churches in Charleston had been built with money from the North. Another belief was that, in direct opposition to existing state laws, northern abolitionists had come to Charleston to instruct the slaves in reading and writing.

The climate of suspicion and unrest came to a head in May 1822. A slave named Peter Desverneys told his master of hearing of a plot to overturn white rule. According to Desverneys, the slaves, assisted by the freed blacks, planned to rise up on the night of June 16 and kill their white owners en masse. Other blacks were brought in for questioning; they implicated still others. By the night of June 16, the militia had been called out, guards had been posted, and the city was in a virtual state of hysteria. Few white slaveowners slept, and a volunteer patrol of 2,500 mounted and armed men rode up and down Charleston streets. Nothing happened. Although there was considerable room for skepticism regarding the validity of the rumor and the guilt of the implicated conspirators, when it was all over 35 blacks had been hanged, and a bunker mentality had been firmly established in Charleston. In December 1822 the residents of Charleston petitioned the state legislature for the establishment of an arsenal, “to protect and preserve the public property . . . and safety.” They stockpiled their own arsenal in the meantime, in a tobacco inspection warehouse at the site of the earlier rampart, and ensured its safety with a 150-member guard. In 1825 approval of state funds permitted the construction





*The Citadel*

of a permanent facility near the tobacco warehouse (and also near the gallows where the supposed conspirators were hung). A municipal guard was established to oversee the care and distribution of the weapons and ammunition stored within.

In December 1842 the state legislature approved the formation of the South Carolina Military Academy at the weapons arsenal, which had come to be known simply as "the citadel." Its purpose was to train a corps of young men, like those who acted as the municipal guard, in a "broad and practical" education. Having a group of trained and armed young men drilling and parading on the grounds was thought to be "conducive to public order." A massive, turreted stone building, of Spanish-Moorish architecture, was constructed within the city block bounded by King, Meeting, Boundary, and Inspection streets. In March 1843, 20 young men reported and the Citadel Academy, named after the original building, was officially in operation.

Seventeen years later, the Citadel found itself at the center of national upheaval, and the college still regards the ensuing events as among its finest moments. The election of Abraham Lincoln to the presidency in November 1860 was considered by slaveholding southerners as tantamount to a declaration of war. Scarcely a month later, on December 20, 1860, South Carolina voted to secede from the union. Unfortunately, federal troops were stationed at Fort Sumter, barely three miles off Charleston's coast at the mouth of Charleston Harbor. The South Carolina militia and Citadel cadets occupied the abandoned Fort Moultrie, on the north promontory of the harbor, and prepared for conflict. James Buchanan, who remained president until Lincoln's inauguration in March 1861, was reluctant to antagonize the South any further, and so decided to dispatch reinforcements of men and supplies to Fort Sumter on a merchant ship (the *Star of the West*), rather than the armed battleship *Brooklyn* as was originally planned. Buchanan discovered after sending the

*Star of the West* that fortifications had been made on Morris Island (off the south promontory of the harbor), making it extremely hazardous for a ship to approach Fort Sumter or Charleston. Buchanan hurriedly dispatched the *Brooklyn* to escort the merchant ship, but, unfortunately, the battleship never caught up. To make matters worse, the War Department had notified Major Anderson, the commander at Fort Sumter, of the impending reinforcements by regular mail, apparently not anticipating that the South Carolina authorities might intercept letters to Fort Sumter, which of course they did. Thus it was that Major Anderson was probably the only person in Charleston who was not waiting for the *Star of the West* when it steamed into Charleston Harbor on January 9, 1861. The Citadel Corps of Cadets had stationed themselves along the battery on Morris Island. Citadel cadet George Haynesworth touched off the first cannon, thereby effectively ushering the United States into the Civil War. The Citadel's cadets received this assignment because they were the best-trained men in Charleston in firing the 24-pound siege guns.

The Civil War forced the Citadel to close temporarily as the cadets took their places in the Confederate ranks, although an encampment of Confederate troops occupied the Citadel's green for the duration of the hostilities. Perhaps the worst moment in Citadel history came on February 18, 1865. The bulk of Charleston's population had already fled the advancing Union troops. Lieutenant Colonel Augustus G. Bennett and about 25 other Union soldiers entered the city, accepted a token of surrender from Charleston's mayor, and occupied the Citadel as their headquarters. Bennett's first action was to order the Stars and Stripes raised over the Citadel and all other public buildings. The South, Charleston, and the Citadel had been defeated.

The federal government returned control of the Citadel to the state in 1882, and the Citadel resumed operation; although the cadets no longer served as arsenal guards, the military tradition continued. In 1918 the city of Charleston donated to the state more than 100 acres of high ground and salt marsh along the Ashley River (two miles north of the original rampart) to be used for a new and bigger Citadel. The building, to which the academy moved in 1922, was modeled on the old Citadel. The campus today boasts 24 buildings surrounding Summerall Field, the parade grounds where the Friday afternoon display of the Citadel Corps is held. The Citadel in the twentieth century has faced problems that relate directly to the unique aspects of the college's military model, its reverence for tradition, and the "holistic" educational philosophy embraced by the military command structure of the school. To understand the Citadel in the modern era, it is vital to understand the Citadel itself.

According to the school's public relations information, the Citadel is a state-assisted, comprehensive, liberal arts college in a military environment. To many southern fam-

ilies it is the finest education the country has to offer. Conroy calls it the last place in America where a boy from Brooklyn can learn to become a southerner, and where a southerner can learn to become a confederate. For the freshman "knobs" (nicknamed for their mandatory shaved heads) at the Citadel, however, to the question, "What is the Citadel?" there is only one right answer: "Sir! It is a fortress of duty, a sentinel of responsibility, a bastion of antiquity, a towering bulwark of rigid discipline, instilling within us high ideals, honor, uprightness, loyalty, patriotism, obedience, initiative, leadership, professional knowledge and pride in achievement."

That discipline, perhaps, is one factor which contributes to the depth of feeling that the Citadel seems to arouse in both alumni and outsiders. Alumni tend to talk about the Citadel in hushed, reverent tones and often consider the "wearing of the ring" their finest achievement. Citadel graduates—a group that includes senators, governors, and CEOs—are bound to each other in brotherhood. (That this charge is taken seriously is borne out by the commonly held belief that a Citadel ring is a guarantee of a good job, somewhere within the umbrella of the Citadel's old-boy network of alumni.) Loyalty to the Citadel as an alma mater can be measured by the fact that a recent four-year fund-raising campaign netted \$27 million, from a school that graduates only 500 cadets ■ year. To the world beyond the Mason-Dixon line, however, the Citadel is at best an anachronism. When the popular press attempts to explain the school, terms such as "idiosyncratic," "eccentric leftover," and "dinosaur" find their way into print. Writer Ellen Willis was even more vitriolic, calling it "a vicious institution, devoid of redeeming social value, that exists for the sole purpose of transmitting authoritarian brutality from one generation of suckers to the next."

The passions aroused by the Citadel focus, for the most part, on two important characteristics. The Citadel is a military school unaffiliated with any of the U.S. Armed Forces; in other words, its educational objectives are pursued under ■ general military model. The style of education employed at the Citadel is known as adversative, which means that the students, or cadets, live in a very regimented atmosphere and experience rigorous "holistic"—meaning physical, emotional, and intellectual—training. This philosophy holds that the experience matures cadets and builds confidence in those who survive the process; in fact, a popular description of upperclassmen at the Citadel is "nine foot tall and bulletproof." The Citadel intends that when ■ man is graduated, he will know with certainty from that moment on that he will be able to handle whatever else life may offer.

This transformation is accomplished in ■ calculated fashion. The freshman, or "plebe" year, is designed to be nine months of sheer misery. "Freshman" is actually a rarely used term—the common terms include "knob," "wad," "waste," "screw," "dumbhead," and "abortion."



Freshmen must ask permission to eat, sleep, cough, scratch, or leave a room. They must obey any order from an upperclassman, assume a peculiar "brace" position when spoken to, and are permitted only three replies: "Sir, yes sir," "Sir, no sir," and "Sir, no excuse sir."

They are often prevented from sleeping or eating, having no freedom or privacy (there are no locks on doors and no curtains on windows), and are harassed, ridiculed, and subjected to extreme physical stress as a matter of routine. It is considered the sophomores' duty to run out any individual who does not measure up to the "Citadel Man"; in fact, it is a point of pride every year among the 17 companies at the Citadel as to which can drive out the most. Although hazing has officially been outlawed, there are still reports of upperclassmen putting cigarettes out on knobs' arms or dunking a knob's head repeatedly in a toilet. The Citadel's response to these charges is that they were made by those who sought excuses for dropping out of the school and that the administration has not been able to substantiate any of the charges. For those who endure until the end of the first year, supposedly, this baptism of fire lends a self-confidence and a feeling of shared experience that defines the rest of his life. One alumnus observed that "at the end of the nine months a miracle as strange as birth takes place. The cadet looks in the mirror, and in a moment of supreme madness, decides he loves the place." The Citadel's numbers seem to bear this out. The graduation rate is 37 percent higher than the national average; among African-American cadets it is 135 percent higher. The Citadel is rated in the top four schools in the United States in the graduation rate of football recruits (among colleges that grant football scholarships). The *Chronicle of Higher Education* reports that 83.3 percent of the Citadel's freshman athletes graduate, compared to 56.1 percent nationally. Among African-American athletes, the figure jumps to 90 percent, twice the national average.

A second controversial aspect of the Citadel is its reverence for the past. Conroy said that "the Citadel was very comfortable with the nineteenth century, but has had some trouble adjusting to the twentieth"—an opinion echoed in many descriptions of the school. The fact that Citadel cadets fired the first volleys in the Civil War is recalled repeatedly on campus as a defining moment of the corps' existence. Black cadets were not admitted to the corps until 1966; the school was embroiled in the 1990s in a well-publicized, prolonged legal battle to keep women from enrolling. To its supporters, adherence to tradition is a vital part of the environment cherished by the Citadel and coeducation was not part of that definition. In the 1960s, while drugs and riots ruled many of the nation's campuses, Citadel cadets were polishing their shoes and learning to clean an M-14; today the Citadel has a reputation in the South as a good place to send one's son to rid his mind of modern influences such as MTV.

Citadel supporters are determined to hold tight the ways of their collegiate forefathers. In 1979 the Citadel Board of Visitors elected Admiral James B. Stockdale—not a Citadel graduate, or even a southerner—to the presidency of the college. Stockdale attempted to put an end to hazing plebes, to erase the school's "macho" image, and to reorganize the structure of command. He lasted less than a year, stating when he left that the Citadel was "locked in pre-Civil War concrete." Perhaps even more telling: in the mid-1990s, the school—one of only two publicly supported all-male military colleges in the country—was in a legal battle over the admission of its first female cadet, Shannon Faulkner. When the news of a temporary stay issued by an appeals court was announced over the school's intercom system, the reaction, according to one alumnus on campus at the time, "was just like winning the World Series. People were yelling and screaming and slapping high-fives."

The Citadel found itself in the middle of a controversial issue—the right of a state-supported organization to define itself versus the right of an individual to be included. Although, since 1966, approximately 3,000 women students have earned graduate and undergraduate degrees, the Citadel continued to fight the application of Faulkner to be admitted as a full-fledged cadet.

After a two-and-a-half year battle in federal courts, in 1995 two Supreme Court justices rejected a last-ditch appeal by the school to prevent Faulkner from becoming a cadet. Along with over 20 males, Faulkner dropped out of the Citadel in the first week. However, women have been accepted for admission as cadets since Faulkner. Finally, after the United States Supreme Court ruled in 1996 that the other state-funded all-male military college's ban against women was unconstitutional, the Citadel announced that it would "enthusiastically" welcome women to the corps of cadets.

**Further Reading:** *The Lords of Discipline* by Citadel alumnus Pat Conroy (New York: Bantam, 1980) is considered the foremost account of what life as a Citadel cadet is really like, even though the plot is technically fictional. *The Boo*, also by Conroy (New York: Doherty, 1970), is a compilation of anecdotes collected from Citadel alumni. Both books give the reader a deeper understanding of the unique environment of the military college. Walter Fraser's *Charleston! Charleston!* (Columbia: University of South Carolina Press, 1989) places the history of the Citadel in context within the city of Charleston. *Fort Sumter 1861* by Albert Castel (Gettysburg, Pennsylvania: Historical Times, 1976) offers a detailed account of the events which led up to the Citadel's involvement in the beginning of the Civil War.

—Wendy Sowder Wippel



# CITY UNIVERSITY OF NEW YORK

## (New York, New York, U.S.A.)

The City University of New York (CUNY) is a state- and city-supported university system comprised of ten senior colleges, six community colleges, and one technical college. With schools throughout the five boroughs of New York City, the total enrollment for these urban colleges is over 210,000 students with 25,000 faculty. Today the CUNY college system is the third largest public university system in the country. The four original CUNY colleges were City College, Hunter College, Brooklyn College, and Queens College.

### City College of New York (New York, New York)

- Location:** Upper Manhattan in the Harlem area.
- Description:** The oldest of the CUNY colleges, City College is an ethnically and racially mixed college offering liberal arts and sciences curricula in its graduate and undergraduate programs.
- Information:** Enrollment Management  
City College of the City University of New York  
Convent Avenue and 138th Street  
New York, NY 10031  
U.S.A.  
(212) 650-6419
- Visiting:** Admission to campus is by valid student I.D.  
Contact phone number above for tours.

Formal higher education was beyond the reach of the average American in the nineteenth century. Townsend Harris was affected by this fact and worked to change it. Born in 1804 in Washington County, New York, Harris came to New York City at the age of 13 to work in a dry-goods store. When he, his father, and his brother formed an import partnership, Harris developed a successful business in china and earthenware. Never marrying, he lived with his mother, who encouraged him to continue educating himself. After becoming fluent in French, Spanish, and Italian, and studying literature, history, and science, Harris became active in politics. In 1846 he was elected president of the New York City Board of Education where his first concern was the development of a free college.

The idea of a free academy began at the end of the eighteenth century in New England with the Jeffersonian idea that education was the path to cultivated citizenry. With the age of Andrew Jackson in the 1820s, the notion

of a common school grew as immigrants began to trickle into the country, and social classes were less defined. The demographics of New York City were changing rapidly as immigrants from Ireland and Germany were arriving; yet the city had no public schools and only two universities—Columbia University and the University of the City of New York (now New York University). Harris proposed the development of a liberal arts school for the sons of tradesmen rather than the sons of landowners. Although he had the support of his fellow Democrats, there was considerable opposition to this controversial idea. Newspaper editorials warned that educating the masses would only lead to class tensions and jealousies between the working class and the elite. Despite its opponents, the proposal for the free academy passed the state legislature and was accepted by the majority of the voters in New York City in 1847.

James Traub, in *City on a Hill*, which covers the history of City College, describes Harris's goals:

Harris's ends were actually . . . conservative . . . ; he had no intention of upending the social order. The notion that higher education might be a means of social mobility, a premise that City College came to vindicate as perhaps no other college did, seems not to have occurred to Harris. Quite the contrary; should the new academy succeed, he wrote, it "would soon raise up a class of mechanics and artists, well skilled in their several pursuits, and eminently qualified to infuse into their fellow-workmen a spirit that would add dignity to labor."

Harris favored building the new school on a site on 23rd Street near Lexington Avenue, a location then considered uptown and away from the bustle of activity. As excavation of the lot began, Harris resigned his position as president of the board of education. Following the death of his mother, his grief was so great that he no longer had the stamina to look after his affairs. His place was taken by Robert Kelly, a Columbia University graduate, who made daily visits to the building site and pushed the project to its completion, within the \$50,000 budget set by the Free Academy Act. The building, designed by James Renwick, the architect who later designed St. Patrick's Cathedral, was completed by January 1, 1849. It was red brick, stood four stories high, and housed 34 classrooms, a library, a chapel, and a large assembly hall.

The Free Academy started its first year with 143 boys of 12 years or older and was headed by ■ West Point graduate, Dr. Horace Webster. He admitted the school's course

of study was rigorous; it included mathematics, history, *belles lettres* [literature], and languages. Natural sciences could be chosen as electives, but bookkeeping was a required course, due to its practical application. Each student was tested once a day in each of his subject areas and any signs of lack of interest could lead to expulsion.

The next ten years saw a steady growth. The board of education provided financial assistance, but help also came in the form of private donations. By the end of its first decade, the Free Academy's library had 9,000 volumes, and the school was empowered to confer a bachelor of arts degree. The Free Academy had graduates going out into the world and entering such fields as medicine, architecture, teaching, engineering, and law.

With the dawn of the Civil War there was some pressure to introduce military science. The faculty deemed it impractical for the school but agreed that students who went into the Union army should be permitted to pass, while two alumni who opted to join the Confederate army were expelled from the Alumni Association "as traitors to their country."

Following the war, the Free Academy saw two major changes. The first was a change in the name of the school, since the term "academy" was deemed misleading for students who were receiving education at the college level. In 1866 it was agreed that the institution would become the College of the City of New York. The second major change was the resignation of Dr. Webster as president of the college. After 20 years as head of the school, the 75-year-old Webster retired and 33-year-old West Point graduate General Alexander Stuart Webb succeeded him. With an illustrious military career behind him, Webb took charge of the college in 1869 as its second president and embarked on yet another battle, when, in that same year, opponents to the idea of a free college began to stir again.

When the school began to offer courses leading to a degree and changed its name, it attracted new opposition. Charles Dana had become owner and managing editor of *The New York Sun* in 1868. The newspaper had previously been one with Democratic leanings, but Dana, a disillusioned liberal, turned it into the voice of conservatism and big business. As early as 1869, *The Sun* began its attack on the College of the City of New York. Dana called for the abolition of the college as a means of cutting taxes. In 1876 a bill was introduced in the New York state legislature calling for closing the school. The bill supported the use of taxpayers' money to fund elementary education but not higher education. The bill did not pass. In 1878, New York voters were asked to choose between a reduction in their taxes and the maintenance of free public higher education. They voted overwhelmingly to continue free public higher education. In that same year, a bill was proposed in the state legislature to change the college's admission policy. Up to that time, young men had to have attended one of the city's public schools

for one year before they could be considered for admission. In 1878, the college's board of trustees voted to ask the legislature to pass an act that would admit all boys—including those who had attended private and parochial schools—who could pass the entrance examination. A bill embodying this change was finally signed into law in May 1882.

Toward the end of the nineteenth century the college underwent more changes. The czarist pogroms in Russia and Poland resulted in a massive Jewish emigration to the United States. Previously the college's students were a mixture of Scottish, Irish, and German Americans. In 1890 one-fourth of the College of the City of New York graduates were Jewish; by 1910 that figure had reached 70 percent. As the college population increased in size, pressures were mounting for more space and, in particular, more buildings. When the trustees introduced a bill into the legislature requesting \$1 million to buy land and erect new classroom buildings, the opposition cried out again. Along with them came *The New York Sun* joking that next, "the city could buy each of them [students] a handsome house." Nonetheless, the bill was overwhelmingly approved by the legislature. In 1895 the college received \$1,175,000 to build their new institution on a site in New York City.

As the planning for the new college commenced and the search for a new site began, General Webb retired in 1903. Gone were the West Point men who had dominated the college since its founding and in their place came John Huston Finley, a Princeton professor. Under Finley's leadership the present site of the college at 138th and Convent Avenue in Manhattan was chosen and construction of new buildings began. All five structures stand today and are listed in the State and National Register of Historic Places. Finley also redesigned the curriculum. Geometry, physics, chemistry, and history were required courses but now six areas of study were offered in either the arts or sciences and options for electives were broadened. With the new buildings and a new curriculum, Finley brought the college into the twentieth century. Before the 75th anniversary of the institution in 1922, the college was visited by two distinguished men. In October 1920, Franklin Delano Roosevelt, then Democratic candidate for vice president, spoke to the students on national politics; in 1921 physicist Albert Einstein lectured on his theory of relativity.

Ten years after taking charge of the growing college, Finley resigned, and Sidney Allan Mezes became the new president. His administration saw further attacks on the school when the Real Estate Board of New York argued that free higher education was more costly to the taxpayers than sending the young men to neighboring Columbia University. Mezes defended his institution, demonstrating that the operating costs were among the lowest of those at any of the tax-supported schools in the country. When Mayor Hylan of New York launched an attack on the col-



lege in 1923, the Supreme Court upheld the right of the state to provide free education to its youth. The school won yet another victory when its budget was increased.

The College of the City of New York continued to grow and by the 1940s had over 8,000 students. In 1938 a study showed that the majority of freshmen entering the college were first-generation immigrants, with 40 percent having fathers who were laborers, unemployed, or not present. The college was, more than ever, providing education to the economically disadvantaged.

Women were beginning to trickle into City College. In 1930 the School of Business began to admit women. In 1938 the School of Engineering, followed by the School of Education in 1943, became co-ed. After World War II the College of Liberal Arts and Sciences approved a proposal to admit women. In autumn of 1951, 150 women registered for classes, making City College entirely coeducational.

In the 1960s the Jewish population began to decline in the college while the African-American and Puerto Rican student population began to increase, once again reflecting the migration and immigration patterns in New York City. But some thought that change had not come quickly enough. Only two percent of City's day students were black, and fewer still were Puerto Rican. When campus tensions mounted with white radicals protesting Vietnam, the Onyx Society (a black power group) and PRISA (a Puerto Rican organization) demanded an increase in minority enrollment. Splinter groups were formed and became militant. Over 100 incidents of campus bombings and arson took place between 1968 and 1969. Demonstrations escalated, racial violence erupted, and in spring 1969 President Buell Gallagher called in 200 police officers to patrol the campus. The police presence only increased the activism. The violence culminated in a fire which destroyed the Finley Student Center. President Gallagher resigned the following day. On May 19 the new president, Joseph Copeland, agreed to withdraw the police, institute a quota system, and to consider creation of a School of Black Studies.

When City University of New York (CUNY) began its first semester in 1970, it was operating under an open admissions policy, and planned to increase the enrollment of poor and minority students. Under this new policy, any city high school graduate who applied was assured a place in one of the system's 16 senior and city colleges, regardless of grades.

During this period of turmoil, one of the most controversial members of the faculty, Leonard Jeffries, joined the faculty of the School of Black Studies. As chairman, he began to lecture on the faults of the curriculum and its reflection of racial hatred. Espousing an Afrocentric view of history, he joined the lecture circuit in 1989. By 1991 Jeffries was gaining national attention and criticism for his speeches. James Traub wrote, "[Jeffries] railed against the Jews who controlled Hollywood, and the Jews who financed the slave trade, and the Jews who ran the affairs

of City College." When CUNY fired him, Jeffries sued. He had been reappointed to his chairmanship every three years without opposition. He argued that his dismissal was based entirely on his lectures and thus clearly violated his right to freedom of speech. He was awarded \$400,000 and reinstated in the department. However, in April 1995, a federal appeals court in New York City ruled that City College could legally demote Jeffries (thereby overturning its own previous ruling).

In its relatively short history, City College has produced many famous graduates, including author Upton Sinclair, philosopher Morris Cohen, actor Edward G. Robinson, and songwriter Ira Gershwin. Jonas Salk, developer of the polio vaccine that bears his name, is another renowned alumnus, as is former general and chairman of the Joint Chiefs of Staff Colin Powell. Julius Rosenberg, later executed for espionage, received his degree in engineering from City College. To date the college counts eight Nobel Prize winners as alumni: Leon Lederman, Arno Penzias, and Robert Hofstadter, who won the prize in physics; Julius Axelrod and Arthur Kornberg in physiology or medicine; Herbert Hauptman and Jerome Karle in chemistry; and Kenneth Arrow in economics.

Today City College is one of the most ethnically and racially diverse of any American college. Its mission remains the one identified by Dr. Horace Webster in an 1849 address:

The experiment is to be tried, whether the children of the people, the children of the whole people, can be educated; and whether an institution of the highest grade, can be successfully controlled by the popular will, not by the privileged few.

### Hunter College (New York, New York)

<b>Location:</b>	Midtown Manhattan, New York City, at 68th Street and Lexington Avenue.
<b>Description:</b>	A self-contained urban college of 20,000 students. Graduate and undergraduate studies are offered in liberal arts and sciences; there are also graduate programs in nursing and social work.
<b>Information:</b>	Office of Admissions Hunter College 695 Park Avenue New York, NY 10021-5085 U.S.A. (212) 772-4490
<b>Visiting:</b>	Admission to campus is by valid student I.D. Contact phone number above for tours.

When Townsend Harris established the Free Academy for boys in 1847, ■ similar school for the education of



girls was discussed. The matter was explored as early as 1849, but it would be another 20 years before the Female Normal School, a teachers school for girls, would open its doors in New York City. Establishing such a school would require a scholar with insight and drive; such a man was Thomas Hunter.

Hunter, the founder and first president of the girls school, was born near Belfast, Ireland in 1831. Employed as a teacher in Ireland, he was dismissed after publishing several revolutionary pamphlets in support of the independence of Ireland from Great Britain. After immigrating to New York in 1850 at the age of 19, he secured several teaching jobs. Hunter became principal of Public School 35 in New York City; he established a night school for adults there in 1866. Recognizing the need for more teachers, Hunter proposed a school for girls. He soon discovered that the New York Board of Education had approved the idea of a girls' school in 1851, and he was put in charge of establishing the city's first teaching school, or normal school as it was then called.

Space for eight classrooms was leased in a building located on Broadway and Fourth Street in lower Manhattan in 1870. As with the boys at the Free Academy, the girls started at age 14 or older. The school attracted over 1,000 students. Within a year the staff had to be enlarged from two professors and three tutors to three professors and 21 tutors. The course work included mathematics, physics, French, English literature, history, drawing, bookkeeping, and writing.

A year after the opening, Hunter decided to look for another location to give his school a permanent home. The present site was chosen for a new building. Today, the location is in the heart of Manhattan; in the 1870s it was barren farmland with goats grazing nearby. One student commented that the only sidewalks in the area were the ones that surrounded the school. Only partially finished, the school opened at its new location in September 1873. Over \$1 million was spent to construct the Gothic structure which contained classrooms and a chapel with plans to finish the gymnasium and the upper floors later. The money to construct the building was provided by the taxpayers, and again Charles Dana spoke out in his newspaper *The New York Sun*. *The Sun* argued that the city had been through several difficult fiscal years and what the people of New York needed was not tax dollars going to another free school.

Regardless of its critics, the school performed amazingly well and in 1881 J. Edward Simmons of the board of education proposed to raise the status of the school to a degree-granting institution. The New York state legislature passed the bill and the Normal College, like its brother school City College, now granted a degree instead of a license after the successful completion of five years of study.

As the institution approached the twentieth century,

Hunter decided to upgrade the curriculum. To meet with state requirements, a three-year high school program was offered as well as a four-year liberal arts program that led to the A.B. degree. Therefore, after seven years of continuous study from the age of 14, a young woman could graduate with a bachelor's degree. This made the school the first free women's college in the nation to grant a college degree. At the age of 75, Hunter retired in 1906.

The Normal College began a summer session in 1910, primarily for the remedial students in the high school division, and that autumn night classes were offered for working girls who desired to further their education. Once again there was talk of a new building, and several years later Dr. Hunter's dark, Gothic structure was replaced by a series of Tudor-style units. A lighter and more fashionable limestone rock was chosen over the dark brownstone or brick facades of the nineteenth century; the cornerstone was laid in 1912. The buildings included a chapel, gymnasium, and offices, with cloisters connecting the library with the chemistry laboratories.

With a new building, a new curriculum, and state recognition, a name change seemed due. At the instigation of the alumnae, the name of the institution was changed from Normal College to Hunter College after its founder. The new name became official on April 4, 1914. In October 1915, five days before his 84th birthday, Dr. Hunter died.

As enrollment continued to rise, overcrowded classrooms became a problem. The new structure fell into disrepair by 1925, and pressures mounted for another new building. A site in the Bronx, a borough almost twice the size of Manhattan, was considered. An estimated 28 percent of the students at Hunter College came from the Bronx, a rapidly expanding borough. West of Fordham University, a plot of land called the Jerome Park Reservoir sat close to the new 200th Street subway station. The new school in the Bronx opened in 1932 but failed to alleviate the overcrowding in the Park Avenue building. Debates about the construction of a new building continued, but Hunter College's president, Eugene Colligan, delayed. Fate intervened on the night of February 14, 1936. A fire broke out and destroyed the limestone building. The students were moved to temporary quarters in leased space throughout the city. Plans for a new building began, but this time, rather than Gothic or Tudor academic style, the building would be functional and modern. The result was a 16-story skyscraper. The previous building had cost \$1 million. This new structure would cost nearly \$6 million. Famed critic of urban architecture Lewis Mumford commented that, although he found the old Hunter College building "possibly the ugliest on Park Avenue; the new one is certainly the handsomest modern structure the avenue can show." The skyscraper school merged nicely with the fashionable apartment houses along the avenue; its facades Mumford



*Hunter College, City University of New York*

described as "kind to the eye." The ground floors he considered the best interiors in the city with "polished lavender-grey marble walls and handsome white-metal lighting bowls." The lunchroom could serve 1,000 students. Mumford maintained that the large auditorium was "better in many respects than Radio City Music Hall." He concluded that Hunter College was in better shape to meet the demands of the future "than any other college in the country." In autumn of 1940, the new building was visited by President Franklin D. Roosevelt, New York State Governor Herbert Lehman, and New York City Mayor Fiorello La Guardia.

As the prospect of a two-ocean war loomed in 1941, military planners saw the advisability of recruiting women for the armed forces. In 1943 the U.S. Naval Center (Women's Reserves) moved into the women's college in the Bronx, which began to be called the "USS Hunter." Under the leadership of Captain William F. Amsden, Hunter College in the Bronx became a naval establishment training over 2,000 women every two weeks. The boot camp prepared over 80,000 WAVES, and 5,000 SPARS and women Marines for military service by 1945.

Following the war, the severe shortage of nurses prompted Hunter College to offer a nursing program that led to ■ B.S. in nursing. The Bronx campus initiated a two-year college level course for returning GIs, marking the beginning of coeducation at the school. Although graduate studies had been introduced in 1921 for both men and women, it was not until 1964 that the college became officially coeducational. In 1968 the Hunter branch in the Bronx became a separate four-year institution named Lehman College.

The theater that Mumford compared to Radio City Music Hall fell into disrepair during the 1970s. In 1993, the Hunter College Playhouse was renovated and renamed the Sylvia and Danny Kaye Playhouse in gratitude for the couple's contribution of \$1 million for the renovation. Opening week featured opera singer and Hunter graduate Martina Arroya.

Among the other graduates who have gone on to success are: opera star Regina Resnick, financial self-help author Sylvia Porter, congresswoman Bella Abzug, film critic Judith Crist, and actress Ruby Dee. Hunter has also produced two Nobel Prize winners: Rosalyn Yalow, who received the prize for physiology or medicine in 1977, and Gertrude Belle Elion, who was awarded the prize in 1988 for physiology or medicine.

### **Brooklyn College (CUNY) (Brooklyn, New York)**

**Location:** The Flatbush section of south central Brooklyn between Ocean Parkway and Flatbush Avenue.

**Description:** An undergraduate and graduate college with enrollment of approximately 13,832.

**Information:** Director of Admission  
Brooklyn College of the City University of New York  
1602 James Hall  
Brooklyn, NY 11210-2889  
U.S.A.  
(718) 951-5921

**Visiting:** Admission to campus is by valid student I.D.  
Contact phone number above for tours.

In 1898 the population of the city of New York increased considerably after the merger of its five boroughs. The Bronx, Brooklyn, Queens, Staten Island, and Manhattan were now called the greater City of New York. As City College and Hunter College began to accept students from these outer boroughs, the two institutions found it increasingly difficult to manage all the students. Brooklyn was the largest borough and had over one-third of the population of the greater City of New York. It was in Brooklyn that President John H. Finley of City College advocated establishing the first free college outside of Manhattan.

In 1917 the president of City College, Finley's successor Sidney Mezes, authorized offering evening courses to male students in Brooklyn; by 1917 an evening school was introduced, starting with 200 students. Classes were held at a high school and students completed their first two years in Brooklyn; then men finished their remaining two years at City College and women at Hunter College. By 1925 enrollment exceeded 2,000 students, and the need to open a new college in the borough had become apparent. In 1930 the New York Board of Education approved the establishment of Brooklyn College. It was to consist of ■ combination of the faculty of Hunter College and City College. Though it was nominally the first public coeducational college in New York City, classes were segregated by sex. The college did not yet have its own buildings, so classes were held in rented space located in five different buildings in the downtown business district in Brooklyn. The struggle for a permanent home was met with the same opposition that City College and Hunter College had previously faced—the unpopularity in some quarters of free higher education for everyone. When the idea of purchasing land for building Brooklyn College was proposed, Stewart Browne, the president of the United Real Estate Owners Association, remarked "These ideas about educating the masses are so much nonsense . . . education for morons can only lead to the collapse of our system and revolutions."

The decision to build the new college had coincided with the Great Depression. Banks were afraid to provide loans during the financially unsound economy. A 40-acre site had been selected in Flatbush, Brooklyn, with an initial asking price of \$4,750,000. Because of the country's financial straits and the delay in the board's decision, the owners brought the price down to \$1,600,000. The board



of higher education could not pass up the deal and supported the purchase of the land. In the meantime, President Franklin D. Roosevelt had initiated his New Deal policy to provide relief to the ailing economy. New York Mayor Fiorello La Guardia took a trip to Washington, D.C. with "incomplete plans which no one looked at anyway" and met with the president. The two men talked and Roosevelt was willing to grant a loan of \$5,500,000 from the Federal Emergency Administration of Public Works. Later that year, on October 2, 1935, Mayor La Guardia broke ground for the new campus with a silver-plated shovel. The construction was completed two years after the groundbreaking, and the buildings were opened for classes in 1937.

Brooklyn College was the child of City College and Hunter College; its administration and curriculum mirrored its parent institutions. While President William Boylan was responsible for establishing the campus facilities, President Harry D. Gideonse was responsible for creating an identity for Brooklyn College. When Gideonse came to Brooklyn College in 1939 he already had an impressive list of credentials. As a professor of economics, he taught at Columbia University, Rutgers University, and the University of Chicago. He had published numerous books and articles on economics and international affairs.

The reorganization of the departments of the college was an early priority as was renovation of campus facilities. However, World War II interrupted his construction plans. To break down the barriers between faculty and administration and also to enhance the curriculum, he expected administrators to teach a class; he himself taught a popular course called "Freedom and Order."

The issue of freedom was to arise early in Gideonse's tenure and to continue for a number of years. In response to the 1930s scare about Communist activity in education, the New York state legislature established a committee in 1940 to investigate subversive activities in New York City's school. Known as the Rapp-Coudert Committee, the body concluded that 30 members of the staff at Brooklyn College were members of the Communist Party. Three of the 30 resigned, 15 were named in public, and the others were never identified. Gideonse asserted that no teacher would be dismissed for membership in a political party. In 1952 the senate's Internal Security Subcommittee returned to the subject of Communist infiltration of higher education. Of the staff from Brooklyn College summoned to appear before the committee, three retired to avoid appearing, and the six who used the protection of the Fifth Amendment were fired by the board of higher education. Gideonse reaffirmed his position of 1940 that membership in a political party should not be grounds for dismissal. He was one of the few who early voiced objections to the tactics of Senator Joseph McCarthy in his pursuit of Communists in government and education. Not until 1980 was there a deter-

mination that injustice had been done to the fired faculty members. The board of trustees, successor to the board of higher education, provided pensions to those faculty members still alive and death benefits to the survivors of those who had died.

In 1940, Gideonse began a review of the college's curriculum, which had been fashioned after its parent institutions, Hunter College and City College. The curriculum was heavy on required courses. Gideonse recommended a major require 30 credits, with the remainder of the course work constituting electives related to the major chosen by the student. Although this curriculum has become standard in many colleges today, it was a new concept in higher education when Gideonse introduced it in the 1940s. The president also concentrated on Brooklyn College's two-year vocational program and fought to have the state award students an associate in arts degree with the option to continue their studies toward a B.A. Brooklyn College thus became a pioneer in the idea of the community college.

When the Middle States Association of Colleges and Secondary Schools visited the campus in 1955 to review its accreditation, the committee called Brooklyn College an institution with "great vitality, sound traditions, scholarly competence and farsighted vision," adding that it was a college "willing to experiment." However, Middle States found the facilities inadequate, which caused *The New York Times* to respond, "If the college could reach such heights with 'inadequate facilities' what could it attain in the years ahead if it had adequate facilities?" Following the Middle States' report, Gideonse oversaw the construction of an auditorium, a theater, a library, and a student center, all of which were completed by 1962. By the time he retired in 1966, Gideonse had doubled enrollment, increased the campus facilities, and turned Brooklyn College from a borough branch campus to a national university.

When the CIA came to the campus to recruit graduates in 1966, they were met with protests from student groups comprised of SDS (Students for a Democratic Society), the Dubois Club, and Youth Against War & Fascism. The following January, U.S. Navy recruiters met with a similar demonstration. In October 1967 an anti-war protest in Boylan Hall resulted in police intervention, media coverage, and the arrest of 60 students.

Increasing minority unrest led to 200 black and Puerto Rican students storming the office of the president in April 1969. They presented him with a list of 18 demands, including an increase of minority faculty and students. Their demands were greeted with indifference. On April 30, 1970, members of the Puerto Rican Alliance took control of the president's office again, with similar demands. This time the new president, John W. Kneller, listened. In 1968 only ten percent of the students were members of a minority group. Ten years later this had increased to 30 percent of the students.

Humorist Sam Levenson, who was graduated from Brooklyn College in 1934, summarized the importance of the college in the lives of the children of immigrants:

We were the children of peddlers, tailors, first-chance Americans, and everybody pointed to the city colleges and said, "This is your opportunity; take it." . . . Brooklyn College to me and to many other children of immigrants represented the Statue of Liberty.

### Queens College (Queens, New York)

<b>Location:</b>	Near the Long Island Expressway in Flushing, Queens.
<b>Description:</b>	Enrolls over 18,000 students in its graduate and undergraduate divisions.
<b>Information:</b>	Director of Admissions Queens College of the City University of New York 65-30 Kissena Boulevard Flushing, NY 11367-1597 U.S.A. (718) 997-5600
<b>Visiting:</b>	Admission to campus is by valid student I.D. Contact phone number above for tours.

While Brooklyn College was growing at a steady rate, the borough of Queens looked to its municipal leaders for a free institution of higher learning. Queens was the largest borough in square miles, but it lagged behind Brooklyn in population. Yet the migration from Manhattan had begun in the 1930s, and Queens needed to meet the demand for educational institutions.

In 1936 the New York Board of Education took the first steps to remedy the problem. A year earlier, the New York Parental School, an institution consisting of nine buildings for truants and delinquents, had been closed permanently. Under the board of education's control the school had remained vacant. A resolution was adopted by the board of education in 1936 to appropriate \$500,000 to establish a college on the premises. The property, located in Flushing, Queens, was not far from Flushing Meadows, the selected site of the 1939 World's Fair.

The first president of Queens College was Paul Klapper. Born in Romania, Klapper arrived in New York with his parents at the age of seven. Like many children of immigrants in New York, he attended City College from which he was graduated in 1904. Klapper was a prolific writer on the subjects of teaching and education and had had a solid career in education, which included the post of Dean of Education at City College. Unlike its sister institution Brooklyn College, Queens College's faculty was not a combination of faculty from Hunter and City

Colleges. Klapper could start afresh by selecting faculty and designing the curriculum (which he patterned after the University of Chicago). In fall of 1937 the first 400 students entered Queens College. Three years later, in 1940, the college was earning a reputation nationwide, and the board of education unanimously approved a raise in Klapper's salary. He declined. The country was coming out of the Great Depression and New York City had suffered fiscally; Klapper recommended that any additional funds be put toward staff salaries and to provide more teachers. Earning \$15,000 a year, Klapper was the lowest paid president in the four municipal colleges.

In 1945 Klapper designed a massive expansion program that would allow the college to more than double its student capacity. His building program called for the construction of a new library, a science building, and a recreation center at a total cost of \$5 million. By the tenth anniversary of the college, in 1947, enrollment hit record numbers with 4,000 students; 23 new faculty members were added that year. To meet the demand for additional space, five barracks-style buildings were erected with a state loan of \$125,000. Klapper retired in 1948 and returned to teaching, at the University of Chicago.

In 1958, following the 20th anniversary of the college, enrollment had increased to over 10,000. In the 1970s the curriculum was liberalized and all required courses were removed except English. However, in 1980, under President Saul Cohen, another curriculum change reinstated basic liberal arts requirements.

Jazz trumpeter Louis Armstrong spent the last 28 years of his life in a house one mile from the campus. In 1983, following the death of his widow Lucille, Queens College became the owner of his personal papers, recordings, and photographs. The Armstrong House, a historical landmark, is administered by the college. The Louis Armstrong archives are housed in the Benjamin Rosenthal Library at the college.

The college recently completed the construction of Aaron Copland School of Music, a \$38 million structure that houses classrooms, studios, faculty offices, and a 491-seat concert hall.

The late writer Michael Harrington taught at the college, as have geologist Barry Commoner, mathematician Dennis Sullivan, and composer Thea Musgrave.

### City University of New York

In 1961 the City University of New York was formed to govern the four main colleges: City College, Hunter College, Brooklyn College, and Queens College. Today the CUNY municipal system comprises six other senior colleges: John Jay College, Herbert Lehman College, Bernard Baruch College, York College, Medgar Evers College, and the College of Staten Island. Community colleges are Manhattan Community College, Bronx Community College, Hostos Community College, Kings-



boro Community College, La Guardia Community College, Queensboro Community College, and the New York City Technical College.

Also established under the CUNY system was the Graduate School and University Center. The graduate school draws on the faculty of the CUNY colleges in addition to researchers from the New York Botanical Gardens, the Metropolitan Museum of Art, and the American Museum of Natural History. Offering doctoral studies, the center also offers select master's degrees and certificate programs.

The Graduate School and University Center is located in midtown Manhattan across from the New York Public Library. In August 1995 it was announced that the graduate school would move into the former B. Altman Department Store building, located a few blocks south of its present location.

In an effort to increase minority enrollment the policy of "open admissions" was instituted by CUNY in 1970. A controversial move, it guaranteed that all New York City high school graduates would gain admission to one of its colleges. Opponents argued that open admissions would result in a decline of standards in the municipal college system. Supporters argued that it followed in the tradition of free colleges, providing higher education to all. More important, in the spirit of the civil rights movement of the 1960s, it was viewed as a method of desegregating the New York universities.

In 1976, CUNY, citing severe financial constraints, started charging tuition. In his book, *City on a Hill*, James Traub described the trauma:

In 1976, with New York City having come within a whisker of bankruptcy, CUNY's budget was slashed by a third. The system actually shut down for the first two weeks in June. City [College] fired fifty-nine nontenured faculty members . . . To reduce the flow of students to the senior colleges, and to raise their level, admissions standards were changed to admit the top third, rather than the top half, of graduating

classes. And in a decision that was no less shocking for being inevitable, CUNY ended its tradition of free tuition. That tradition, at City College, was over 125 years old. Tuition would be only \$900 a year, and state grants were generally available to cover much of the cost; but a higher education was no longer available to all who qualified.

Today the CUNY system continues to suffer from budget cuts, tuition increases, and faculty layoffs. Critics charge that CUNY had lowered its standards through open admissions. City College President Yolanda Moses credits the CUNY system with a rigorous emphasis on standards and a continuing concern for minority students. "City College," she says, "was founded in 1847 to educate the children of the whole people. Today we still accept the challenge."

**Further Reading:** S. Willis Rudy's *The College of the City of New York: A History 1847-1947* (New York: City College Press, 1949) provides a comprehensive account of the first 100 years of the college. James Traub discusses the fate of open admissions at City College in *City on a Hill: Testing the American Dream at City College* (Reading, Massachusetts: Addison-Wesley, 1994). Samuel White Patterson's *Hunter College* (New York: Lantern Press, 1955) covers the 85-year history of the college from 1870-1955. Hunter College President George N. Shuster writes of his experiences in *The Ground I Walked On* (New York: Farrar Straus, 1961). Murray Horowitz's *Brooklyn College: The First Half-Century* (New York: Brooklyn College Press, 1981) provides an exhaustive account from the college's founding to the present day. A thorough bibliography of writing by and about President Harry Gideonse was compiled by the Brooklyn College librarians under the editorship of Alex Preminger in *Urban Educator* (New York: Twayne, 1970).

—Patrice Kane



# CLAREMONT COLLEGES

## (Claremont, California, U.S.A.)

<b>Location:</b>	In Claremont, 35 miles east of Los Angeles.
<b>Description:</b>	A consortium of five undergraduate colleges and one graduate school, enrolling approximately 4,400 undergraduate and 1,800 graduate students.
<b>Information:</b>	<div>Admissions Office Pomona College 550 North College Avenue Claremont, CA 91711 U.S.A. (909) 621-8134</div> <div>Admissions Office Scripps College 1030 Columbia Avenue Claremont, CA 91711 U.S.A. (909) 621-8149</div> <div>Admissions Office Claremont McKenna College 890 Columbia Avenue Claremont, CA 91711 U.S.A. (909) 621-8088</div> <div>Admissions Office Harvey Mudd College Claremont, CA 91711 U.S.A. (909) 621-8011</div> <div>Admissions Office Pitzer College 1050 North Mills Avenue Claremont, CA 91711 U.S.A. (909) 621-8129</div> <div>Admissions Office Claremont Graduate School Claremont, CA 91711 U.S.A. (909) 621-8069</div>

The Claremont Colleges are a community of six private colleges, inspired by the colleges of New England and by Oxford University. On adjacent campuses in southern

California, the traditions of New England and English education continue to flourish.

A community of scholars founded the first college, which generated a series of residential colleges linked by place and by a vision of quality education. This consortium shares the diverse assets of larger community, while each college preserves the personality of an individual school.

Forty years after the Gold Rush, the frontiers of southern California attracted settlers from the eastern United States, many lured by the Santa Fe railroad's promotion of available fertile land. Emigrants traveled west on excursion trains to view and purchase sites of former Spanish ranchos. In 1887, the railroad advertised townsites and sold lots along its route through the San Gabriel Valley. As part of the land boom, the General Association of Congregational Churches of Southern California founded a college and preparatory school in Piedmont, also known as North Pomona. Named Pomona College, it was incorporated on October 6, 1887. The new school was coeducational and nonsectarian, although established on Christian principles.

The Congregationalists promoted Pomona as a residential college of the New England type—on the Pacific Coast. This venture attracted scholars such as the first dean, who saw a notice in a Congregational paper about the New England college in California.

Students—27 in the preparatory department and three in the collegiate department—began attending classes in a rented house in 1888. Unfortunately, the land boom collapsed that same year. In nearby Claremont, a new hotel stood empty. One of its investors, a Pomona trustee, offered to donate the Hotel Claremont and 260 lots of surrounding land to Pomona College. The move was to be temporary, but the college remained permanently on the site. Despite the relocation, Pomona College retained its original name.

Pomona's first class was graduated in 1894. The school survived financial difficulties in the 1890s and grew to 507 students by 1908, with 60 percent now in the collegiate classes. By that time, Pomona had established a reputation for outstanding academic courses and had established the first chapter of Phi Beta Kappa in southern California in 1914.

The community of Claremont grew along with the college. The town agreed to close streets so the campus could be unified. The main thoroughfare, College Avenue, was widened, and eucalyptus trees were planted on both sides of the street. By 1915 the college had six buildings that are still in use today, including a library donated by Andrew Carnegie in 1908.



*Pomona College, Claremont Colleges*

As a focus of the community, Pomona College maintained a religious foundation. Most members of the board of trustees were Congregationalists, and most teachers were Congregational ministers. The college's motto was "Our Tribute to Christian Civilization." The YMCA was active on campus, students had to take work in the religion department, and an annual Day of Prayer for Colleges was observed.

Pomona College began the transition from a single college to a group of colleges, thanks to its resourceful president, James A. Blaisdell. A professor from Beloit College in Wisconsin, Blaisdell became the college's fourth president in 1910. This Congregational minister brought together Christian principles and a love for edu-

cation. The gates of Pomona are inscribed with his invitation: "Let only the eager, thoughtful, and reverent enter here." Dean E.C. Norton voiced the opinion of many, praising Blaisdell as a seer who could translate dreams into reality.

Blaisdell expanded Pomona College to 685 undergraduates by 1919, and he raised sufficient funds to secure the college's future. In the 1920s, he resisted the demands to admit more students and to expand Pomona College. He envisioned Claremont as a community of centers of learning, with education funded by individuals, not governed by the state. He communicated his concept to another transplanted midwesterner, Ellen Browning Scripps. Scripps, born in Illinois in 1836, was a publisher and sup-



porter of women's suffrage in the late nineteenth century. She helped her brothers found the newspapers which became the Scripps-Howard newspaper chain.

In 1923, Blaisdell wrote a letter to philanthropist Scripps, describing his sincere hope

that instead of one great, undifferentiated university, we might have a group of institutions divided into small colleges—somewhat on the Oxford type—around a library and other utilities which they would use in common. In this way I should hope to preserve the inestimable personal values of the small college while securing the facilities of the great university.

What became the distinctive Claremont Group Plan was modeled on Oxford University, with colleges as individual corporations grouped around an academic center. The colleges would thrive as unique and separate schools, yet they would unite to share common facilities. The dream of a succession of private colleges required money for land and buildings. Scripps provided the initial funding. Before the colleges had incorporated, she spent \$250,000 for 250 acres of land to implement the Group Plan. The land was initially held in the name of Pomona College and then conveyed to Claremont Colleges. Scripps was in her nineties when she purchased the Claremont acreage, sight unseen. She also made available \$500,000 to establish Scripps College. Her largesse inspired others to acquire property for the Group Plan for future college development.

Blaisdell's idea was a product of the 1920s. Wealthy Californians, including many Pomona alumni, were intrigued by the colleges. Pomona had just completed a capital campaign for \$3 million, and investors willingly came forward to support a consortium. Over the next 40 years, private and corporate contributions led to the founding of five private colleges.

The Claremont Colleges began when a board of trustees filed articles of incorporation as Claremont Colleges, October 14, 1925. All but two of these men were members of the Pomona College Board of Trustees. Blaisdell was chosen president in 1925; he retained his position as president of Pomona College until 1928. This central coordinating corporation received a \$1 million bequest from its first board of fellow's chairman, Colonel Seeley W. Mudd, in 1926.

Blaisdell compared the concept of Claremont Colleges to the United States. The central institution would act like the federal government, and the separate states would agree to join forces. He felt that the colleges could cooperate voluntarily, so for years Claremont Colleges operated without a formal constitution. New undergraduate colleges would be organized as Pomona was, emphasizing individual educational goals. They would remain smaller than Pomona's limit of 800, set in 1927.

Scripps College, which was incorporated June 12, 1926, opened in 1927 with 50 students. The board of fellows conveyed land to the new college from the Pomona holdings. The college adopted a motto from Dante, *Incipit Vita Nova* (Here begins a new life). The buildings of the Scripps campus reflected California's influence. Instead of copying the monumental Classical Revival style dominant at Pomona, Scripps achieved an aura of Spanish charm associated with the Mediterranean climate.

Claremont Colleges was an inclusive organization, with one of its roles the issuing of graduate degrees. Pomona had awarded over 80 master's degrees by 1925. The new graduate school administered this program and enrolled its first four students in 1925. Initially, except for courses in education, graduate courses were taught by faculty from the undergraduate colleges.

Claremont Colleges' graduate school began granting master's degrees in 1928. It appointed its first permanent, full-time professors outside the field of education prior to Blaisdell's retirement in 1936. Unusual in American higher education, the school is not part of a university. The undergraduate colleges provide faculty to teach some graduate courses, and graduate faculty may reciprocate at the colleges. Upperclassmen may attend graduate classes. The graduate school is financially independent from the other schools and appoints its own faculty and staff.

Throughout its first decade, the consortium survived conflicts over the Claremont Colleges as separate but not competing institutions. The members agreed to fund shared capital facilities, of which the infirmary was the first, in 1929. The Mabel Shaw Bridges Auditorium was built in 1931, located on Pomona land, and Harper Hall followed in 1932. Yet member colleges sought autonomy, following Pomona's example. Pomona was a complete college, mature before the Group Plan, and it continued to maintain a separate identity in academics and student activities. The need for a third undergraduate college was voiced in 1927 and planned as a men's college. The plans were promoted in 1929 and again in 1940, but halted first by the Depression and then by World War II.

A 1942 operating agreement, based on voluntary associations, created an intercollegiate council that replaced the board of fellows. One continuing issue was the name of the central institution, which went through five changes over its first four decades. Finally, the official name became the Claremont University Center (CUC) in 1967. The consortium agreed on enrollment limits in 1942, choosing to grow by adding colleges rather than by expanding the existing colleges. The colleges began and remained small, compared to the large schools on the West Coast, such as Stanford University and the University of Southern California. The existing colleges helped the three new schools started after the war, offering space in their facilities and even waiving service charges for joint services to Pitzer College in its first year. Scripps graciously exchanged its athletic facilities with the newly



established Harvey Mudd College for adjacent, vacant land. Honnold Library, constructed in 1952, was another joint facility. Colleges shared use but retained ownership of their own books.

The Claremont Undergraduate School for Men was founded June 4, 1946. A class of 86 arrived that September, mostly veterans who temporarily lived in the basement of Bridges Auditorium. The college was incorporated as Claremont Men's College (CMC) in 1947 and grew to 325 students by 1948. It finally became Claremont McKenna College in 1981.

The Cold War and population boom influenced the founding of the two post-war colleges. The colleges agreed that the new schools added strength by expanding constituencies. Harvey Mudd College (HMC) aimed to offer an education for socially responsible engineers. Pitzer College, planned since 1959 as a women's college, would emphasize social sciences.

Officials anticipated the impact of baby boomers in the 1960s. They founded the next college December 14, 1955, naming it after chairman of the board of fellows Harvey S. Mudd, son of Seeley Mudd. The Mudds had helped to organize other colleges, and his family and friends pledged generous financial support.

Harvey Mudd College was planned as a technical school, to provide the nation with new engineers and to add science and engineering to the Group Plan. Harvey Mudd College was the first private college of science and engineering founded since 1900. Although its campus is only 15 miles from one of the nation's premier science institutions, the California Institute of Technology, Caltech welcomed the new school. Many graduates of Caltech have served on the HMC faculty.

The second post-war college, Pitzer, was incorporated February 21, 1963. Russell K. Pitzer funded the first two buildings. A 1900 graduate of Pomona College, he had helped establish CMC and HMC. Pitzer was the first independent college for women founded since Bennington. The first class of 153 entered in 1964.

The increased number of potential students sustained the colleges, with a total enrollment of 2,973 by 1965. Every college had sought expansion to attract top students and faculty. In 1948 Pomona was over its limit of 800 students with 1,100. Scripps asked to increase its limit from 225 to 325 and then to 400 in 1962. CMC requested an increase to 600. In 1958, HMC planned for 270, a number reached in 1965.

The concept of the affiliated colleges attracted other California institutions. La Verne College, six miles from Claremont, sought affiliation. In 1964, Immaculate Heart College began inquiries about purchasing land in Claremont. After acquiring 20 acres, Immaculate Heart planned in 1971 to move as a neighbor, not a member of the consortium, but the move did not occur. The School of Theology left the University of Southern California, and Rancho Santa Ana Botanic Garden also relocated to Claremont.

The social revolutions of the late 1960s had an impact on the Claremont Colleges. The colleges hosted "Claremont-Ins" (love-ins) and rock concerts, along with peace marches and antiwar demonstrations. Political activists Tom Hayden and Angela Davis were both visiting lecturers. Although student rebellion was limited compared to actions at larger schools, two buildings were bombed in 1969.

Students and administrators discussed changes in policy. In 1964 over 96 percent of first-year students were Caucasian. The Black Students Union and United Mexican-American Students (now Chicano Studies), both established in 1969, sought increased minority recruitment and curriculum changes. Students and even some faculty conducted sit-ins to protest injustice. All the Claremont schools have increased diversity in their student populations, with a current average of 40 percent minority students. In 1964, single-gender residence halls were the norm. Now most residence halls are coeducational.

Women have shared Claremont history from the outset. Both Pomona and HMC were planned as coeducational colleges. Scripps was founded by an enterprising woman and began with women comprising half of its board of trustees. Scripps has since had two women presidents. Two of the gender-specific colleges became coeducational: Pitzer in 1970 and CMC in 1976.

The colleges remained similar yet diverse. A major fundraising effort initiated more cooperative efforts. In 1965, the Ford Foundation announced a single grant of \$5 million, if the colleges raised \$15 million in matching funds within three years. A joint Challenge Committee agreed that each college would pursue an individual campaign, expanding the total goal to \$81 million over seven years. A constitution in 1967 also symbolized the strength of a combined educational center; it also set maximum enrollments at 1,300 for Pomona and 800 for the other four undergraduate colleges.

Previously, the Ford Foundation had declined a 1962 application for a grant, citing a lack of group cooperation. The colleges still pursued separate academic programs. For example, the Tri-College Science Program (Scripps, Pitzer, and CMC) was the first completely integrated undergraduate department. Pomona had voted not to participate in a common science center in 1954. Built in 1955, the new joint center was followed by a second science building in 1968 and a new Joint Science Center in 1992.

Claremont has succeeded in founding five private colleges in 40 years, funded by private and corporate contributions. Blaisdell sought a place of strength and loveliness, a community which would inspire its citizens to seek order in their lives. Scripps had predicted, "I am thinking of a college campus whose simplicity and beauty will unobtrusively seep into the student's consciousness and quietly develop a standard of taste and judgement." The campuses reflect planning and vision.

Lines of trees lead the eye to the northern mountains, and the buildings blend with the landscape. Covering one square mile, the six affiliated schools exist as what appears a seamless community. The Scripps campus is on the National Register of Historic Places.

The experiment has thrived for 70 years. The Group Plan has allowed the individual colleges to embark on innovative educational programs. Claremont Men's College sponsors eight research institutes on campus. At Pomona and HMC, students share research with faculty. Harvey Mudd College's Engineering Clinic Program, begun in 1963, teams students with faculty to solve problems of government, business, and industry.

Each college emphasizes critical thinking. Scripps said:

I am not in sympathy with the so-called education imparted by an austere professor behind a desk to rows of docile students facing him, with ■ textbook as their only means of communication. Rather I like

to think of a circle of teachers and students exchanging ideas and creating a mental capital . . . which no textbook can supply.

**Further Reading:** William Clary, a Pomona graduate and college official, wrote ■ detailed history of the university center, *The Claremont Colleges: A History of the Development of the Claremont Group Plan* (Claremont, California: Claremont University Center, 1970). Joseph Platt's *Harvey Mudd College: The First Twenty Years* (Santa Barbara, California: Fithian, 1994) is a lively narrative covering recent history. For an earlier perspective of Claremont's largest college, see *Granite and Sagebrush: Reminiscences of the First Fifty Years of Pomona College* by Frank P. Brackett (Los Angeles: Ward Ritchie, 1944).

—Charlene Strickland

# COLLEGE OF MEXICO

## (Mexico City, Mexico)

<b>Location:</b>	Mexico City, in the southern part of the city.
<b>Description:</b>	Publicly funded autonomous research center with 359 students and 306 faculty.
<b>Information:</b>	Secretario Academico Camino Al Ajusco #20 Mexico, D.F. (5) 645-4721 Fax (5) 645-0464

El Colegio de México (COLMEX, the College of Mexico) was created on October 3, 1940, out of the Casa de España. Established a couple of years earlier, the Casa was composed largely of artists and professionals. It yielded to an institution, COLMEX, that would become important in research and graduate education in the humanities and, especially, the social sciences.

For progressive President Lázaro Cárdenas, the pressing motivation behind these institutional creations was to rescue and attract Spanish intellectuals at peril from their country's Civil War. Founders such as Alfonso Reyes and Daniel Cosío Villegas sought to create a research center capable of excellence and objectivity, which they viewed as beyond the reach of Mexico's own public university (UNAM), which was mired by ties to politics and the professions. The university actually aided COLMEX's formation, with the understanding that the new institution would not compete on the university's main teaching turf.

Major expansion came in stages. In the early 1960s Cosío Villegas led the way. In 1966 economist Víctor Urquidí took the reigns and presided a decade later over the institution's move to much more ample facilities in the south of Mexico City. Urquidí continued effectively as president, for a decade beyond that. The ascension of Mario Ojeda, and then Andrés Lira, continued the string of estimable academic figures.

When COLMEX's centers added teaching, it was mostly at the graduate level. As of 1996, COLMEX had only 63 undergraduates. Graduate enrollments were 6 times greater (106 masters, 120 doctoral candidates, and 70 specialized degree students); enrollment is equally divided between the sexes. There are almost as many professors. Of the 306 professors, 296 are full-time, but only 151 are permanent employees of the institution, so that the student/professor ratio is closer to 2:1 than 1:1. In any event, such figures reflect COLMEX's status as one of a breed of institutions that has in recent decades

proliferated throughout Latin America: freestanding social-science centers devoted mostly to research. In fact, COLMEX assumes mammoth importance as the oldest and probably the broadest and best of the breed; particularly unusual is the strong inclusion of humanities alongside social science.

Although most nonaffiliated research centers are private, and some are public, COLMEX's status is subject to different interpretations. The College of Mexico's own lawyers insist it is public and point to factors such as the public agencies that created it, the constitution of the board, the principal source and restrictions on the funding, and appointment of the college president by the president of Mexico. On the other hand, until 1993 Mexico's most prominent listings of institutions put COLMEX in the private camp, citing especially its status as a Civil Association.

Not including its more specialized programs, COLMEX has seven centers: African and Asian affairs, demography and urban development, economics, history, international relations, literature and linguistics, and sociology. History was first, in 1941, soon followed by sociology and then literature and linguistics. Doctorates are given in Spanish linguistics and literature, Latin American history, sociology, and population studies. Masters are given in economics; demography and urban studies; and studies on Asia, Africa, and the Pacific Rim; and an undergraduate degree is given in international relations.

Over 70 percent of student applicants are rejected. Those admitted face a more structured graduate program than counterparts at other Latin American institutions. The vast majority of full-time faculty members boast advanced degrees, usually Ph.Ds. Almost half the full-time faculty are incorporated into the competitive National System of Researchers, a proportion far higher than at any other social research institution. The College of Mexico is credited with saving the nation from a more serious "brain drain" from academia.

Beyond Mexico, the impact of COLMEX's foreign graduates has been enormous in select institutions and fields of study (such as demography and economics). Moreover, COLMEX played a major role in the creation of Latin America's two main social science networks: the Faculty of Latin American Social Science (FLACSO), with a presence in more than ten countries (including Mexico); and the Latin American Council of Social Sciences (CLACSO), which functions throughout the regions. Within Mexico, COLMEX has been a model for a loose network of colleges in various states. Some, such as the college of Northern Frontier and the Colegio in



Michoacán, are quite successful. Within Mexico City itself, CIDE (Center of Research and Teaching in Economics) has followed the COLMEX model in most respects—including quality—and rivals the senior institution in size. The College of Mexico faculty routinely offer courses in the city's universities. And as the Mexican university system entered a period of major reform, COLMEX provided vital precedents: evaluations of performance; differential rewards; pressure to publish; applied research for the public, for-profit, and nonprofit sectors; mixed public and private funding; international contacts and norms; empirical research; and such.

Yet even COLMEX cannot escape many of the factors that limit the otherwise spectacular success of Latin America's freestanding research centers. Small size constrains efforts and results; COLMEX is a giant among these centers but that still leaves it tiny compared to leading universities. With a 1996 budget of only \$17.5 million, it covered only some activities and fields of study. Its library (660,000 volumes) is at once impressively large for Latin America and yet small compared to even average U.S. universities. The teaching program is small in part because it is extraordinarily generous with the teaching load placed on faculty. Many teach just one course per year or one every two years; some can escape teaching altogether. And even with an uncommonly low student/teacher ratio, the degree completion rate is low in some centers. While the number of published professional papers and popular policy articles are impressive, and although the publication output overwhelms what Latin America's universities manage per capita, the profile is modest by international academic standards. Much of what is written is subject only to in-house review and is published in-house. International academic standards dictate a scrupulous peer-review, and juried publications.

Also problematic, research epitomizes COLMEX's role as a think tank for the Mexican government, its relative autonomy notwithstanding. The close relationship with the government is clear in other ways as well, including the government's role in selecting the institution's leadership and in financing. In return, the government gets research that is on topics of its choosing that can be used to support the government's own agenda. Beyond that, it is common for COLMEX's administrative leaders, faculty, and students to get recruited directly into government positions. Impacts in fields such as economics, international relations, and demography are notable, but they are even notable in the humanities (such as in the drawing up of school texts). Additionally, the institution offers seminars for government officials.

Naturally, the overall success and direction of COLMEX has depended greatly on adequate financing. The bulk of income is from the government. That means contracts and also unusual funding for Latin America, annual subsidies, which provide some level of guaranteed salary. The government funds have never been sufficient, though. Without tuition (COLMEX students get scholarships) or significant domestic corporate donations, the main financing has been through international philanthropy.

The College of Mexico's leaders have taken a very positive view of the impact of this non-Mexican philanthropy. They regard it as having been crucial to COLMEX's early existence, later to its international academic credibility, and now to its continued excellence. By the end of the 1960s, foreign sources had fallen to just one-fifth of COLMEX's total income, three-quarters of that from just two giant foundations, Rockefeller and Ford, but the funding has remained pivotal for quality and innovation. While foreign foundations have been crucial to the creation and sustenance of many Latin American private research centers, their primary recipient has been COLMEX. Today Rockefeller and Ford Foundations are joined by some U.S. foundations, including Hewlett and MacArthur, and Sasakawa (Japan), Konrad Adenauer and Friedrich Ebert (Germany), and the International Development Research Center (Canada).

Several trends are appearing to move other Latin American research centers somewhat closer to the structure of COLMEX. With redemocratization in many Latin nations, centers have moved to partnerships with governments. They rely increasingly on government money, though contracts and cosultancies remain important. With government support, some institutions have moved into formal graduate education. And, in general, centers that aspire to achieve greater size, influence, and quality of scholarship have COLMEX as an enduring example of what can be possible.

**Further Reading:** For perspectives on the institution within the context of the range of Latin America's freestanding research centers, see Daniel C. Levy, *Building the Third Sector: Latin America's Private Research Centers and Nonprofit Development* (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1996).

—Daniel C. Levy

# COLLEGE OF WILLIAM AND MARY

## (Williamsburg, Virginia, U.S.A.)

<b>Location:</b>	Adjacent to Colonial Williamsburg, 150 miles south of Washington, D.C., and 50 miles from Richmond and Norfolk.
<b>Description:</b>	A state-supported, four-year, coeducational, residential university.
<b>Information:</b>	Office of Undergraduate Admission P.O. Box 8795 Williamsburg, VA 23187-8795 U.S.A. (804) 221-4223
<b>Visiting:</b>	Group information sessions, followed by guided tours, are available; no appointment is necessary.

The College of William and Mary is the second oldest educational institution in the United States, preceded only by Harvard University. Founded in 1693 by a royal charter, it answered a long-standing need for a school of higher education in Virginia and the surrounding colonies. Originally, in 1617, colonists planned to establish a college that would educate and Christianize Indian children. Ten thousand acres in Henrico, Virginia, were endowed by the Virginia Company of London for the college grounds, at a location 12 miles south of what is now Richmond. But in 1622 an Indian uprising killed George Thorpe, the man named to construct the school, as well as 347 other colonists. The town of Henrico was destroyed, the charter revoked, and Virginia became a royal colony.

The plans for a college were therefore abandoned, although the need for such a school persisted. Aware that colonists were often reluctant to send their sons back to England to be educated, Anglican clergy in Virginia proposed in 1690 that a college should be formed consisting of three schools: grammar, philosophy, and divinity. The Reverend James Blair, a Scottish clergyman who was head of the Anglican Church in Virginia and commissary of the bishop of London, was one of the chief proponents of the establishment of the school, and it was he who traveled to England in 1691 with instructions from the General Assembly of Virginia to secure a charter for the college. Blair subsequently met with the king and queen and garnered the support of the archbishop of Canterbury. He also arranged to have part of the income from an estate of the Honorable Robert Boyle, the renowned philosopher and chemist, put aside to help fund the college,

specifically to help educate Indian children. The churchman's skill at fundraising would also lead him to a less conventional source of income: He negotiated a £300 donation to the college when he assisted in the acquittal of three Virginians on trial for piracy in London.

On February 8, 1693, with a grant of £2,000 and an endowment of 20,000 acres, the charter was granted. The document set forth three primary purposes for the college: the education of the white youth of Virginia, the training of ministers for the church, and the conversion of Indians. The charter also provided for the revenue of a penny per pound tax on tobacco sent from Virginia and Maryland to countries other than England. In return for his efforts, Reverend Blair was named president of the college, a position he held until his death in 1743.

The development of the College of William and Mary proceeded: a site for the college was established in what was called the "Middle Plantation," between the York and James Rivers. On November 16, 1693, the General Assembly of Virginia voted to charge an export duty on furs and skins to support the college. Construction of what was simply called the "College Building" began at a bricklaying ceremony in August 1695. Two years later, two of the building's wings were completed and lessons for young, grammar school boys began. They were taught by Reverend Blair, a grammar master, a master of arts, and a writing master; the subjects of instruction were reading, writing, Latin, and Greek. College-level instruction would not be fully established until 1729.

The College of William and Mary was immediately popular. For its first commencement in 1700, it is said that people came not just from Virginia, but from the colonies of Pennsylvania, New York, and Maryland. The growth of the school was noted in England: in 1706, a London publication, *Post Boy*, included a notice that said the college "is so crowded with Students, that they begin to think of enlarging the College, for it seems divers from Pennsylvania, Maryland, and Carolina send their Sons thither to be educated."

In 1699 the colonial capital of Virginia was moved from Jamestown to the Middle Plantation, which was then renamed Williamsburg. Legislators were pleased to observe the benefits that this arrangement would confer upon the college; the Act of 1699, which outlined the development of Williamsburg, noted: "It will prove highly advantageous and beneficial to his Majesty's Royall Colledge of William & Mary to have the conveniences of a towne near the same." Indeed, the presence of the capital gave students access to a center of culture and government. Moreover, from this time forward, the





*College of William and Mary*

fortunes of the school and the town were closely linked; they would thrive and suffer together.

The original campus consisted of three buildings, all of which are standing today. The main building (the College Building) is now known as the Sir Christopher Wren Building in honor of the renowned British architect. It is believed that he drew the plans for this building, although he had no involvement in their implementation. Hugh Jones recorded in 1724 that the building was

first modelled by Sir Christopher Wren, adapted to the Nature of the Country by the Gentlemen there; and since it was burnt down [in 1705], it has been rebuilt, and nicely contrived, altered and adorned by the ingenious Direction of General Spotswood; and is not altogether unlike Chelsea Hospital.

The Wren Building would be restored after two other fires in 1859 and 1862. One of the greatest losses in these fires was the destruction of most of the original records of the college. In addition to the distinction of being designed by Wren, the structure is notable for being the country's oldest building to serve in continuous academic use.

In 1723 the building known as the Brafferton was constructed to house the Indian school. It is named after the English estate of the school's benefactor Robert Boyle. While the Indian school gives William and Mary the claim of having created the first integrated educational institution in the colonies, it was not ultimately successful. Although in 1712 the school had 20 Indian pupils, including the sons of tribal royalty, it did not thrive. As Mary Newton Stanard noted in 1912, the boys "returned to idol-



atry and barbarism"; a more recent interpretation by the college president Thomas Graves in 1976, explained that "when these William and Mary students went back to their tribes, they did not want to hunt and fish any more as normal braves, but preferred just to sit around."

The third building in the original campus is the President's House, constructed in 1732. Together with the Wren Building and the Brafferton, it completes the third point of a triangle. The fully restored trio is considered an outstanding architectural achievement and is a tourist attraction in its own right.

The College of William and Mary was the only college operating in the South in 1775 when the American Revolution began. Because of its strategic location, it was occupied by military units several times. This was the norm rather than the exception, as seven of the nine existing colonial colleges were occupied by troops; in fact, William and Mary was the last college to be occupied. The college was commandeered at different times by British and American troops. In May 1781, Virginia was invaded by Lord Cornwallis, and college classes were suspended until 1782. In late June, British troops marched into Williamsburg and stayed there until July 4, using the President's House as their headquarters. Next, American troops entered the city, bringing the French with them; from September 1781 to June 1782, the college buildings were used to house wounded French soldiers. On November 3, 1781, the President's House was gutted by fire during this occupation. Fortunately, the French government gave £12,000 to pay for the damages, and the house was rebuilt in 1786. The college also suffered financially because of the war: in England, Boyle's Brafferton estate had been seized by the British; the income from the estate, which supported both William and Mary and Harvard, was sorely missed.

Meanwhile, the school's most notable alumnus, Thomas Jefferson, was working to promote its welfare in the state assembly. In 1779, three years after the Declaration of Independence and 17 years after he was graduated from the college, Jefferson proposed a bill that would have given the state the power to select the college's trustees and chancellor. The idea of a public university was not a popular one, however, and Jefferson's bill did not pass. Jefferson found other ways to use his influence and was instrumental in reducing the dominance of the Anglican Church at the college. While he was a member of the college's board of visitors, they voted to do away with two professorships in theology and one in classical languages that "involved the study of Scripture." The board replaced these faculty chairs with positions in the sciences and modern languages. With the abolition of these chairs, there were no British-born or British-educated professors on the faculty of the College of William and Mary.

As a member of the board (and now serving as Virginia's governor) Jefferson also participated in the creation of a school of law in 1779, the first of its kind in the

United States. He supported the appointment of George Wythe as the first law professor. Wythe, a signer of the Declaration of Independence and Jefferson's former teacher, held the chair until 1790. The future president also helped to introduce the elective system of study and the honor system, two other William and Mary "firsts."

Thomas Jefferson is one of three U.S. presidents to have attended the College of William and Mary; he is joined by James Monroe, who was graduated in 1776 and John Tyler, a graduate in 1807. The college also lists an impressive number of graduates who were prominent figures in the American Revolution. Four of the signatures on the Declaration of Independence belong to William and Mary graduates, and 16 members of the Continental Congress were alumni. John Marshall, the first chief justice, was also a William and Mary graduate, and George Washington was the college's chancellor from 1788 until his death in 1799. Thus the university is able to refer to itself as the "Alma Mater of a Nation." The impact of William and Mary collegians in the revolution is made all the more striking by the fact that only one colonist in 1,000 was college educated. The school's academic distinctions were further enhanced by the founding in 1776 of the honorary academic society Phi Beta Kappa. The first organization of its kind, PBK now includes 228 chapters and 360,000 members.

The college's leadership role and its general fortunes would be diminished with the removal of the state capital to Richmond in 1780. This change brought the school to relative obscurity during the next 100 years. In 1849 the enrollment was shockingly low, with only 21 students attending William and Mary. Soon, the Civil War would threaten the school's very existence. During the war, with the entire faculty and nearly 90 percent of the student body enlisted in the Confederate army, the school was closed from 1861 to 1865. In May 1862, Federal troops marched on Williamsburg; four months later drunken Union soldiers set fire to the Wren Building. In the spring of 1865, the college was fortified, and cannons were placed inside the main buildings to ward off a possible Confederate raid. Even after the war ended, the faculty found conditions too difficult to continue; in 1868 they were forced to suspend classes until the damaged campus buildings were rebuilt and repaired. Classes resumed in October 1869, but the law school remained closed until 1920.

The determination of the college's president, Colonel Benjamin Ewell (elected 1854), kept the school alive during a desperate quarter century, from 1860 to 1888. Financial failure closed the college in 1881, but Ewell persisted in maintaining the school's charter. Finally, in 1888, his petitions to the general assembly resulted in an annual appropriation of \$10,000 for the training of teachers. At the same time, a new president was inaugurated; Lyon G. Tyler, son of U.S. president John Tyler, took over the reins of an institution that soon grew in academic reputation, if not in financial security.

Continued financial problems resulted in the transfer of all college property to the commonwealth of Virginia in 1906, the college thus becoming a state-supported institution. The next year, with the help of the Carnegie Corporation, new funds were raised and a library was built (a section of the Wren Building had served as the library). Over the next several decades, many other buildings were added, including dormitories, a gymnasium, a dining hall, ■ physics and chemistry building, ■ classroom building, and an infirmary. With these improvements, the college began to take on the shape of a modern campus. Another modernization at William and Mary occurred in 1918, when it became the first Virginia college to become coeducational.

In 1920 the law school was reopened, giving further evidence of the improvement of William and Mary's status. An even greater event would more fully reestablish the college: the commencement of the restoration of colonial Williamsburg in 1926. This project was the combined effort of the college, the Colonial Williamsburg Foundation, and philanthropist John D. Rockefeller Jr. It resulted in the faithful restoration of the buildings of the original campus and the renaming of the College Building as the Sir Christopher Wren Building. A sunken garden was also created at the back of the Wren Building as a tribute to Thomas Jefferson. It is said he had expressed the wish that an undisturbed view of the countryside should be seen from this spot; the college has honored this wish with a large open area known as "Jefferson's Prospect."

The college expanded in 1930, by including a campus in Norfolk, a branch which would eventually become independent and be known as Old Dominion University. The William and Mary satellite called Christopher Newport College began as ■ junior college and became a full four-year school in 1968. On the main campus, the 1960s brought several important developments: in 1964, William and Mary was authorized to grant doctoral degrees, and in 1967, it was declared ■ university, although it retained its original name.

Today the university considers itself a "public ivy," and maintains the policy that all classes must be taught by professors (rather than teaching assistants). The school has six academic divisions: Arts and Sciences, Business Administration, Education, Law, and Marine Science. Not surprisingly, the history department is considered to be one of the school's finest, and is ■ sponsor of the Institute for Early American History and Culture. Two-thirds of its 5,300 undergraduate students come from Virginia, the remaining third from all over the world. The 1,200-acre campus, which is divided into "ancient," "modern," and "new" areas, now includes 40 major buildings, as well as Lake Matoaka and the College Woods.

**Further Reading:** *The Colonial Colleges in the War for American Independence* by John F. Roche (Millwood, New York: Associated Faculty, 1986) provides an account of the nine colleges that existed during the American Revolution and the role that they played in its events. *Colonial Virginia: Its People and Customs* by Mary Newton Stanard (Philadelphia: Lippincott, 1917; reprint, Detroit: Singing Tree, 1970) gives a brief account of the founding of William and Mary. Volume one of *American Higher Education*, edited by Richard Hofstadter and Wilson Smith (Chicago: University of Chicago Press, 1961) includes a condensed version of the college's 1693 charter. *Colonial Williamsburg: Its Buildings and Gardens* by A. Lawrence Kocher and Howard Dearstyne (Williamsburg, Virginia: Colonial Williamsburg, 1949) and *Williamsburg Today & Yesterday* by Grace Norton Rose (New York: Putnam, 1940) are slim volumes that give the history of the main buildings on campus. *Vital Facts: A Chronology of the College of William & Mary* (Williamsburg, Virginia: College of William and Mary, 1921; revised edition, 1993) is a detailed chronological listing of events in the history of the college.

—Karen Price



# COLUMBIA UNIVERSITY

## (New York, New York, U.S.A.)

<b>Location:</b>	Columbia's main campus is in the vicinity of 120th Street, in northern Manhattan, New York City.
<b>Description:</b>	A private university incorporating 15 professional and academic schools, and enrolling approximately 20,000 students.
<b>Information:</b>	Office of Public Information and Communications Columbia University Low Memorial Library, Room 304 535 West 116th Street New York, NY 10027-7017 U.S.A. (212) 854-5573

In 1746, the General Assembly of New York sanctioned the first in a series of public lotteries to fund a college within the American colonies, and five years later, when the total sum of £3,443 had been raised, a board of trustees was selected to organize an institution. Trinity Church then offered to deed to the trustees a portion of King's Farm, a plot of land in what is now southern Manhattan, that it had acquired in 1702 or 1703 for the express purpose of establishing a college. The offer was accepted, and on October 31, 1754, King George II chartered an educational institution in New York City to be named "King's College."

Even before the charter was enacted, the trustees offered the presidency of the college to Dr. Samuel Johnson, a Congregational minister widely respected in both Britain and the colonies for his scholarly achievements. Dr. Johnson accepted, and oversaw the examination of candidates for entrance to the college in the summer of 1754. He began instructing eight students that year in the schoolhouse of Trinity Church. Not until 1760 was the first college building raised on the new campus.

The War of American Independence wrapped King's College in a cocoon from which Columbia University emerged approximately eight years later. On a May evening in 1775, the college's second president, Myles Cooper, was chased from his home, while still in his bedclothes, by a mob of citizens enraged by his loyalist speeches and writings. Cooper was afforded time to escape when a young alumnus of the class of 1774 scolded the crowd for acting indecently in the name of liberty. That brave man was Alexander Hamilton, the first

U.S. Secretary of the Treasury. Probably not more than two years later, the college building was seized by revolutionaries and used first as a barracks, and later as a hospital. The college itself effectively ceased operation until 1784, when the New York state legislature enacted a new charter granting the school the status of a university with the name of "Columbia College."

For almost three years, Columbia was controlled by the Regents of the University of the State of New York, during which time a small faculty was organized, and two classes were graduated. However, the regents soon realized that they could not effectively manage the several schools under their jurisdiction, and so they recommended that each college in the state be designated a corporation to be governed by an independent board of trustees. Alexander Hamilton is the probable author of a legislative act to that effect which was passed on April 13, 1787. Columbia was a private institution once again.

The college's newly appointed trustees elected William Samuel Johnson, son of the first president of King's College, the first president of Columbia. The younger Johnson was an influential lawyer and politician before his appointment; he served simultaneously as the U.S. senator from Connecticut during his 16-year tenure as head of the college. Johnson's primary accomplishment at Columbia was the founding of the medical school in 1792, the direction of which he assigned to Dean Samuel Bard, who had been with the school since its reformulation under the regents. Seven medical professors were hired, and the foundations for two new buildings laid; however, a shortage of funds long retarded development of the new program.

For the first half of the nineteenth century, Columbia stagnated under inept leadership. The most memorable event of that period was a subdued riot on commencement day, 1811. Provost John Mason, the acknowledged head of the school, persuaded President William Harris to refuse a diploma to a student named Stevenson who had read a controversial political essay—at odds with Mason's views—at the graduation ceremony. When Stevenson demanded his diploma, Mason instructed a nearby city marshal to arrest him, but Stevenson's peers and the attendant audience jumped to his defense, and the marshal was forced to retreat. Several of the students involved were found guilty of rioting. (Stevenson did not receive his diploma until 1816, when he was graduated from the College of Physicians and Surgeons.) Hardly had the deleterious effects of the riot on morale at the college abated when nine prominent New Yorkers, including three alumni, organized the University of the City of New





*Columbia University*

York (later New York University), having declared Columbia out of step with the liberal ideals of a democratic nation. By the late 1840s, Columbia still enrolled fewer than 100 students and was deeply in debt.

Despite Columbia's financial difficulties, the trustees determined to move the school to a new campus in 1856. Thirty-two years earlier, the state legislature had donated to the college a botanic garden, situated where Rockefeller Center is now located in midtown Manhattan, with the intention of providing an endowment. However, the trustees had retained the property and now planned to relocate their college there. The property at King's Farm was sold, and Columbia moved into the vacated quarters of the Deaf and Dumb Asylum, at Fourth Avenue and 49th Street, with the intention of remaining there only until a new plant was constructed on the planned site. The

Civil War prevented the trustees from realizing their plan (although the college did not rally behind the war effort to the extent that many other institutions in the North did), and Columbia remained on the grounds of the old asylum until its move to Morningside Heights in the mid-1890s.

Columbia was rejuvenated by Frederick A.P. Barnard, a graduate of Yale, who resigned from his presidency at the University of Mississippi when the Civil War began and accepted an offer to head Columbia in 1865. Barnard instituted sweeping changes at the college. He favored a practical curriculum over the traditional liberal arts education, at a time when the liberal arts college was still regarded as the center of the American academy. In 1883, he organized a women's program at Columbia; from that, Barnard College for women opened in 1889. Frederick Barnard also deter-

mined that Columbia should be modeled on the German research universities of the late nineteenth century, thus leading a trend in American education. Barnard's innovative ideas and enthusiasm soon attracted massive donations, as well as bright faculty and students. Between 1857 and 1889, Columbia's endowment rose tenfold, the number of teachers rose from 14 to 203, and enrollment rose from less than 150 to 1,712.

However, not everyone's impression of Columbia in the 1880s was a positive one. Professor John W. Burgess, who was persuaded to leave Amherst for Columbia and who was instrumental in founding Columbia's School of Political Science, recorded his early dismay. He found the faculty very odd: "I could not imagine upon what principle they had been brought together. . . . The students were rich loafers with no appreciation of anything scientific or intellectual." Another professor told Burgess, "I do as little as I can for these dunderheads and save my time for research."

Seth Low, a wealthy socialite and an alumnus of the class of 1870, was elected president of the college in 1889, following Barnard's death. Low was a skilled fundraiser who made considerable progress toward realizing Barnard's vision of Columbia. Most importantly, Low orchestrated the college's move to a new campus that was capable of sustaining a large and complex university. The trustees had contemplated a move uptown at least since 1872, when the corporation purchased ten acres at 160th Street and the Hudson River. That property was sold in 1889, however, while several costly buildings were erected on the 49th Street campus. Around the same time, however, it became apparent that Columbia would soon outgrow its confines there, as the expansion begun under Barnard continued unabated. Therefore, in 1894, the trustees approved the purchase of the old Bloomingdale Insane Asylum and surrounding property near 120th Street, where the present Morningside Heights campus is located. The asylum's buildings were promptly renovated for academic use, and the various branches of the college gradually moved into their new home.

Departments and schools proliferated before and during Low's presidency. King's College claimed the first professorship in law, established in 1773, but neither Columbia nor any other school in America had any systematic law course until at least 1858, when Theodore Dwight joined the faculty at Columbia. The school acquired its own facilities only in 1873, and Dwight remained the sole member of the faculty until 1875. The University of Physicians and Surgeons, organized at King's in 1767, separated from Columbia in 1807 but reunited with it in 1891. During the 1880s, the School of Mines, organized in 1864, added courses in civil, mechanical, and electrical engineering, and a department of architecture. In 1896, in recognition of these other developments, the trustees retitled the institution, "Columbia University in the City of New York,"

although the title was not legally attached to the corporation until 1912.

Nicholas Murray Butler was elected president of the university in 1902, having already established a successful career at Columbia. Having earned both his undergraduate and graduate degrees there in the 1880s, he returned from a trip to Europe to take a position as professor of philosophy. He was named dean of the philosophy department in 1890, and acting president upon Low's retirement in 1901. Butler's accomplishments as an administrator at Columbia, as an educational innovator of national stature, and as a statesman were so astounding that Theodore Roosevelt referred to him as "Nicholas Miraculous." Butler was a man of fame and prestige who claimed to have known 13 U.S. presidents personally, and who himself was the Republican vice-presidential candidate during William Taft's unsuccessful run for re-election in 1912.

Immediately upon his election as president of Columbia, Butler declared that the university was in pressing need of money, and so he devoted himself to fundraising. He solicited \$16 million in donations during his first ten years in office, and by the time of his departure, he had raised more than \$120 million. One of his most notable successes was the acquisition of \$1 million from Joseph Pulitzer in 1904, with which the Columbia School of Journalism was founded. Pulitzer had offered the money to Harvard, but only on the condition that he could appoint an advisory board to help develop a curriculum. President Eliot of Harvard hesitated, whereupon Butler stole the opportunity.

In the early years of his administration, Butler heavily favored practical and professional curricula and specialized courses of academic study. His ambitions were twofold: to provide students with educations of definite application and to transform Columbia into a research university of the German variety. In 1905, he recommended that students move directly into professional programs after just two years of undergraduate study; at the same time, courses were added in such workaday subjects as "practical poultry raising." Thus, Butler was a proponent of transforming America's teaching colleges into modern universities. At Columbia and elsewhere, there was a backlash against those changes. In an effort to revive the liberal arts college at Columbia, Professor John Erskine inaugurated the Great Books course in 1916, and three years later, he organized a course in contemporary civilization.

Butler's emphasis on practical courses had positive and lasting effects at the university. For example, in 1886, even before assuming the presidency, Butler became involved with the Kitchen Garden Club, an organization associated with the church of St. Marks-in-the-Bouwerie, which trained schoolgirls in the practical skills of gardening and home economics. At the same time, Butler advocated the introduction of manual training programs into the New Jersey public school curriculum, and he



approached members of the club with an offer to coordinate his efforts with theirs. The organization changed its name to the "Industrial Education Association" and elected Butler president in 1887. Shortly thereafter, Butler organized a practical course on teaching for public school instructors, held Saturday mornings on Columbia's campus. The trustees initially objected to women entering Columbia's classrooms, but the course proved enormously popular, and opposition faded quickly. In 1889, the Education Association was renamed "The New York College for the Training of Teachers," otherwise known as the Teachers College.

The evolution of the university's capacity as a research institution is demonstrated in the contribution that Columbia's faculty made in the development of the atomic bomb. Discussions between Enrico Fermi, I.I. Rabi, and others at Columbia led to the first experimental investigation of nuclear fission in the United States, on January 25, 1939. Several of the professors involved in the project at Columbia and Princeton Universities contacted President Roosevelt that fall, and the following year the National Defense Council issued one of its first research grants to Columbia. A financial link between government and university research programs was thus established; such links have since heavily influenced the American academy. The famous Manhattan Project was born, and, by 1944, there were approximately 1,450 people at Columbia working secretly to develop the atomic bomb. (Ironically, Nicholas Murray Butler had shared the Nobel Peace Prize in 1931 for his efforts in behalf of disarmament and international peace.)

In 1955, all federal funding for defense-related research conducted at American universities was put under control of the Institute for Defense Analysis (IDA), which made Columbia one of its chief beneficiaries. Moral objection to the university's involvement in military research peaked during the Vietnam War and partially provoked the famous Columbia riots of 1968. Between April 23 and 30, the Students for a Democratic Society (SDS), and a number of Columbia's African-

American students occupied five buildings on the Morningside Heights campus. They promised to leave only if the administration severed ties with the IDA, and ceased building the Morningside gymnasium, which displaced African-American families in the Harlem community adjacent to Columbia. Administrators gave up hope of finding a peaceful solution when the occupation was entering its second week, and they ordered the police to take the buildings by force early on the morning of Tuesday, April 30. Dozens of students who resisted arrest were clubbed, and 524 Columbia students were arrested.

After the return of peace to the campus, Columbia continued on the course fixed by President Butler late in his administration. In 1996, approximately 87 percent of Columbia's students were enrolled in graduate or professional schools. Columbia's continued commitment to research is indicated by the fact that between 1955 and 1996, 15 professors earned Nobel Prizes while working at the university, the largest percentage in physics. During the same period, investment and donations raised the university's endowment to \$2.2 billion. Today, Columbia is one of the wealthiest and most prestigious universities in the country.

**Further Reading:** *A History of Columbia University, 1754–1904*, edited by Brander Matthews, John B. Pine, Harry Thurston Peck, Munroe Smith, and Frederick P. Keppel (London: Macmillan, and New York: Columbia University Press, 1904) is probably the best of several books that cover the history of Columbia from its beginnings through 1901. *Columbia: Colossus on the Hudson* by Horace Coon (New York: Dutton, 1947) covers the same period as well as the first half of the twentieth century. There is scant material on later developments at Columbia, but *Crisis at Columbia: Report of the Fact-Finding Commission Appointed to Investigate the Disturbances at Columbia University in April and May 1968* (New York: Vintage, 1968) covers the riots of 1968 in thorough detail.

—Christopher Hoyt



# COMPLUTENSE UNIVERSITY OF MADRID

## (Madrid, Spain)

**Location:** Just north of the old, central section of Madrid.

**Description:** As state institution under the jurisdiction of the Ministry of Education and Science, enrolling approximately 127,000 students in undergraduate, graduate, doctoral and professional programs.

**Information:** Universidad Complutense de Madrid  
Universitaria, 28040 Madrid  
Spain  
(1) 49-02-56  
Telex: 41857

Sixteen years after Christopher Columbus discovered the New World in 1492, the Universidad Complutense de Madrid was founded. But the world's third largest university can trace its roots back more than seven centuries when King Sancho IV of Castille founded a study center in Alcalá de Henares.

Universities, or centers of higher education, were extensions of monastic schools and medieval colleges and have their origin in the eleventh and twelfth centuries in western Europe. Universities were first formed in France, England, and Italy. In the thirteenth century, universities began to appear on the Iberian Peninsula. The first was a school of general studies at Palencia, which later moved to Valladolid, followed by one in Salamanca. On May 20, 1239, a royal warrant established a school of general studies in the town of Alacá. (It would be 206 years before the school acquired the status of university and 543 years before the school was permanently transferred to Madrid because of financial difficulties.)

According to the royal warrant, the University of Alacá was to have "all those franchises that the 'Etudium,' [school of general studies] of Valladolid possessed," so that "the tutors and scholars to be will come here to study."

While this is the first documentation for the foundation of the University of Madrid, there is not enough additional information from the period to give an indication of the university's operations. However, information is available about one of the other Spanish universities—the University of Bologna—where only students of law and theology were admitted.

In 1348, Spanish rulers regulated and organized all the study centers in Castille as part of a reorganization of all the country's laws. The centers of higher learning were

confirmed as a "council of tutors and scholars formed with the intention and purpose of acquiring knowledge." Under this reorganization, students were taught grammar, rhetoric, dialect with Aristotelian logic, mathematics, geometry, music, and logic. The method of teaching was repetition and discussion; the language of instruction was Latin, which allowed the exchange of students throughout Europe. A professor was assigned to each subject. Known as a tutor, the professor received a salary, was exempt from paying taxes, and did not have to serve in the Spanish army. A rector was employed to oversee the school itself, but he had no authority in academic matters or the granting of degrees; those functions fell within the province of the university's chancellor.

Students were chosen to fill vacancies at the school by examination by representatives of the region's cathedrals. All students had to be at least 19 years of age and were given 7-year grants to cover food, clothing, and lodging.

While the university had been established by a king, the religious figures of the area played a key role in its creation and development. The school was built at the request of don Gonzalo Garcí Gudiel, the archbishop of Toledo. Two future archbishops of Toledo also played important roles in the development of the Complutense: don Alfonso Carrillo and Francisco Jiménez de Cisneros.

Before being named archbishop, Bishop Carrillo intervened in the marriage of Isabelle and Ferdinand, which made possible the unification of Spain. After being named archbishop in 1446, he held a special favor toward Alcalá. Not long after his appointment as archbishop, Carrillo argued for the construction of a house of studies in the city. He entrusted the house of studies to the Franciscans and ordered three positions be made available for teachers for the study of grammar and the arts. He obtained the money to fund the teachers from Pope Calixtus III; in 1459 the funds were increased by Pope Pius II.

Cardinal Jiménez de Cisneros, who was born in a village near Madrid, first had contact with the study center as a youth when he studied there. He went on to complete his education in Salamanca, obtaining a bachelor's degree in law. He rose through the ranks as an archpriest and vicar general, later deciding to become a Franciscan friar in 1484. In 1492 he emerged from the Franciscans to be Queen Isabelle's confessor, and three years later became the archbishop of Toledo. In 1498, the development of Complutense University began at Alcalá as land and buildings in the area were bought. A year later, the first stone was laid for the university.

While construction had begun on the university, Cisneros also promoted the development of a printing press in the university's city. The press was used to print philosophical and religious books for the school. Years after the college was established, Cisneros tackled another project that would bring him and the Complutense fame. From 1514 to 1517, the printers worked on the "Complutense Polygot Bible," a Bible that contained Hebrew, Greek, Latin, and Chaldean characters in one book. The project began in 1502 when Cisneros began work on the first polygot Bible. For the undertaking, he hired most of the great experts on the four languages to teach at the university. He chose to produce the Bible in the original languages, saying, "No version can faithfully translate all the force and propriety of the original." Most of the Bibles were destroyed when a ship carrying them to Rome was wrecked.

Although many popes gave money to Cisneros to construct the university, he still was faced with difficulties in seeing it completed. Often he had discussions with the authorities at Salamanca who wanted to halt construction and have all the funds diverted to their school to challenge the superiority of the University of France. The construction of the university took a decade, and in the summer of 1508 the College of San Ildefonso was complete. The school officially opened July 26, 1508, with 500 students. For students to graduate, they had to pass a corresponding exam before a group of graduates from the university.

The College of San Ildefonso became the major college of Complutense. It was located in the main university building; beside it were the rectory and the university's library, one of the most important in Europe. In the following year, smaller colleges for theologians, Franciscans, philosophers and others were opened in the university. Following Cisneros's death in 1516, another college opened for the study of Greek, Latin and Hebrew.

Royalty and religious figures often visited the school, a tribute to its standing among centers for higher education. In 1514, Cisneros and King Ferdinand both attended the school's graduation. Another king, Charles V, declined to sit in his usual seat of honor, sitting instead in the choir to be with the nation's men of learning. Similarly, King Francis I of France during a visit to the city paid Cisneros tribute, saying that the University of Paris was the work of many kings while Complutense was the work of one friar (Cisneros) over a short period of time. Pope John Paul II visited Complutense on November 3, 1982, and reminded members of Spain's science and cultural societies of the school's importance. He encouraged students to "build the utopia of a new world." A few years later, the Pope was given a facsimile copy of the Complutense Polygot Bible from the Rector Francisco Bustelo.

After Cisneros's death, the university faced more turmoil, a foreshadowing of its future. During his tenure, the university had become well known and had begun to

attract students from all over Europe, even competing with such schools as the University of Paris. Now, there were disputes between students and town residents, which eventually led to the school's departure to Madrid. According to some, moving the university to Madrid, which was not Spain's capital at the time, first was suggested by the bishop of Palencia. But that suggestion was rebuffed by Madrid Governor Francisco de Prado, who thought the students would be out of place in a city about to become the nation's capital. "You can't mix the striped cloaks of the philosophers with the august purple of the princes," he said. Prado got his wish, as the university was not moved until October 15, 1822. The restoration of absolutism returned the university to Alcalá, but the school's opening only delayed the inevitable.

During the sixteenth and seventeenth centuries the school had been renowned. King Philip II sent his son Charles, half-brother John, and nephew to study at the university. He also made 40 scholarships available to the sons of royal servants to study there as well. By the mid-1600s, the university was composed of the College of San Ildefonso and 35 other minor colleges that were set up in their own buildings or in the surrounding convents. Along with its educational growth, artistic and architectural changes came as well. The College of San Ildefonso was rebuilt and a chapel and great patio for the university also were constructed. During that time, Alcalá became the model for urban development and architectural style. But it was its scholarly acclaim that Complutense became known for. The school even served as the model for the first university established in the New World, the University of Santo Domingo.

While Philip II was impressed with the university, he nonetheless established a royal study center in Madrid in the mid-1500s. The center, called the Imperial College of Madrid, was run by Jesuits. The school taught grammar, theology, and rhetoric and educated many royalties. In 1624, the royal study center was promoted to the level of university despite the objections at Complutense and the University of Salamanca. The Jesuits taught at the royal university until they were exiled from Spain in 1767 for their beliefs and teaching methods.

About 1770, the idea of establishing a larger university in Madrid began to develop. The first step toward the move of Complutense to Madrid came with the faculty of medicine being sent to the Calle Atocha Hospital in Madrid. While Complutense flourished during the 1600s and 1700s, its decline had begun in part because of the Inquisition and censorship of new ideas in academia, violence, limitations within the colleges for faculty salaries and areas of study, and the lack of newer fields such as science. In 1786 no more than 450 students remained at the school, about one-quarter its earlier attendance. The admission process remained selective and college life rigorous. It was during this time that the university graduated its first woman as a doctor. Maria Isidra de Guzman



y la Cerda was examined in philosophy and letters in 1785 and received her doctoral robes.

Fiscal problems and the Napoléonic wars led to the university closing its doors for a year in 1810. Town officials fought to keep the university but its fate was sealed in 1821 when it was recommended that the central university be established in Madrid to teach theology, law, natural history, botany, mathematics and other studies. Plans for the university's move to Madrid lasted from 1836 to 1845. The university's library was formed by combining the libraries of Alcalá, the royal study centers, and the colleges of medicine and pharmacy. On October 29, 1836, a royal decree made the University of Madrid a reality, stating that "the University of Alcalá will be transferred to Madrid where the corresponding lands will be given, so that it will be an establishment worthy of the capital and the Monarchy." The transfer was carried out in November, with several colleges moving immediately. The university sold its buildings in Alcalá, but the town residents did not honor the sale, reclaiming the buildings and confiscating all the articles in them to be sold or burned, including a cross of gold and glass, which was sold in 1839, that had been given to Cardinal Cisneros by Leo X. In 1842, the students were transferred from Las Salesas to the Norviciado, and the two buildings became the central places of study in the center of the growing city. By 1860, the university was well established with 40 percent of Spain's 2,465 students studying at Complutense de Madrid.

During the next half century, the university moved toward a more secular role in the community and in 1869, Rector Fernando de Castro incorporated many of the proposals set forward by a group known as the Institute of Free Education, among them coeducation and incorporating sports into the educational system. Castro, in effect, opened the university doors to every Spaniard for the first time.

During this time of change toward educational freedom and independence, Alfonso XII decided to consolidate the university, ending its array of scattered buildings

in Madrid. By royal decree, on October 20, 1911, Alfonso XII ordered a University Campus to replace the decrepit building on Atocha Street. The king bought several plots of land on the La Montcloa estate and in 1928 construction plans were drawn.

Building committee members visited the United States to see several universities to use as models for construction. Architect López Otero began work on the buildings, which were a combination of traditional art and modernist experiments of plants and buildings. The project won acclaim at the International Exhibition of Barcelona in 1929. Unfortunately, the campus was on the front-line during the Spanish Civil War and many of the buildings, documents, and scientific archives were damaged. Otero worked to reconstruct many of the buildings after the war.

The latter half of the 20th century has seen several members of the university community honored internationally. Juan Ramon Jiménez won the Nobel prize for literature in 1956 and three years later former physiology student Severo Ochoa won the Nobel Prize for medicine.

Today, students wanting to attend the University of Madrid must obtain a secondary school certificate or its foreign equivalent, go through examination orientation, and pass an entrance exam. The school has grown from a small study center to a large research institution with nearly 130,000 students being taught by 5,500 teachers and professors. The university is so large that it is contained within a section of Madrid known as University City. In 1992, the university granted bachelor degrees in 31 majors and had 232 department courses. It is the largest university in Spain.

**Further Reading:** Rogelio Perez Bustamante's work, *A Brief History of the Complutense University of Madrid*, gives a quick review of the first 700 years of Spain's largest university.

—J. Cameron Tew



# COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART (New York, New York, U.S.A.)

<b>Location:</b>	On Third Avenue in Manhattan's East Village.
<b>Description:</b>	A private, independent, nonprofit institution enrolling 1,000 students in architecture, art, and engineering schools.
<b>Information:</b>	Office of Admissions and Records The Cooper Union for the Advancement of Science and Art 30 Cooper Square New York, NY 10003 U.S.A. (212) 353-4120

The Cooper Union for the Advancement of Science and Art, established in 1859, was conceived and founded by New York businessman and philanthropist Peter Cooper. Cooper, who had risen from a modest background to become a giant of industry by the mid-nineteenth century, believed that traditional forms of apprenticeship had broken down in the industrial era and this conviction led him to establish Cooper Union as an institution that would fill in the gap by providing, tuition-free, practical education to the working classes of New York City.

The origins of Cooper Union can be traced to the late 1830s, when Cooper first spoke to friends and colleagues about his ideas for an educational institution designed specifically to respond to the needs of working-class citizens. At about this same time Cooper acquired, by way of an outstanding debt that was owed him, a lot measuring 16' by 22' on the northeast corner of Third Avenue and Seventh Street. Over the course of the next 13 years (from 1839 to 1852) Cooper purchased 16 more oddly shaped parcels of property surrounding the original lot with the intent to build what he called the Union at that location.

During these years plans for the design and scope of the Union began to take shape, although several significant alterations to these plans would occur before the school opened its doors in the fall of 1859. In general terms, Cooper imagined the school not simply as a college or university or even a secondary school but as a "Union" where city workers, as well as their children (ages 14 and up), could gather for discussions and attend classes, lectures, and debates, and where trade unions and other similar organizations could hold their

meetings. In his early plans for the Union, Cooper, who had served as trustee for the Public School Society of New York but had received little formal education himself, placed great importance on popular lectures, dialogue, visual aids, and demonstrations as methods of teaching and less importance on semester-long courses, drills, and examinations. Over the course of the planning process, however, advisors convinced Cooper that traditional methods of instruction would be necessary for the Union to become a viable institution of learning. Cooper's hand in the formation of the Union, though, was still apparent. It was Cooper who insisted the Union be structured as a resource institution that would respond to the particular needs of working-class students and not an institution that would doggedly stand by traditional academic principles in the face of a rapidly changing social climate.

By 1853 Cooper had accrued enough property to begin construction on the Union's main building, now called the Foundation Building. A small ceremony accompanying the laying of the cornerstone took place on September 17; the gathering was attended by the mayor and covered by *The New York Times*. Fittingly, Cooper, who had spent many of his early years as a laborer, outperformed the mayor when it came time to lay the bricks, as was noted by the *Times* reporter:

His Honor used the trowel as delicately as he would lift a pea on his silver fork. Mr. Cooper, on the other hand, handled the implement and laid on the mortar with as bold and workmanlike a hand as though he had been brought up to the business; indeed, as a bystander observed, he took to the mortar like a brick.

Six years after the laying of the cornerstone, construction was completed.

Structurally, the Foundation Building was ahead of its time. Facing Third Avenue and the Bowery, it was one of the first buildings to be supported by iron girders (the iron being produced by Cooper's iron production company). One notable feature to the building was a ventilation system run by a large steam-powered fan. Another feature was a large, empty shaft running from the basement of the building to the top floor. Cooper, who was somewhat of an inventor himself, realized that elevators would be available in the not too distant future, and thus he left space for them. Building costs totalled \$630,000



*Cooper Union*



and were paid for in full by Cooper himself, even though this sum was more than double the \$300,000 he had allocated for those purposes.

True to his entrepreneurial nature, Cooper wanted to make all-inclusive the scope of the Union's educational facilities and this led to some overly ambitious plans for the Foundation Building. Among other things, the building was conceived originally to include a museum, a cosmorama (or observatory), meeting and debate rooms, a roof-garden which would be used for summer concerts, and an entire floor with alcoves for statues. In fact, Cooper was so certain the museum would be an integral part of the Union that he purchased a gigantic stuffed whale to be the centerpiece of the museum collection. Upon considering the advice of his closest advisors, however, Cooper donated the whale to the Museum of Natural History, and the space allotted for the museum eventually became a public reading room. Cooper's advisors also convinced him to install a laboratory in place of the proposed cosmorama and additional classrooms in place of meeting rooms.

A similar narrowing process took place in the conception of the Union's academic offerings. Specifically, it was decided that the main emphases of the Union's "curriculum" would consist of courses, lectures, and workshops in applied science and political science, for which all classes would be taught at night; in art and design for women, for which all classes would be taught during the day; and in technology and science. Cooper envisioned the latter as a separate entity within the Union, but this was not achieved during his lifetime.

Plans for the night school and day school, however, would be immediately realized, save for the fact that courses in political science were put on hold, as difficulties were encountered in the hiring of suitable instructors. The art school for women became a reality in 1858 when Cooper permitted the New York School of Design, an already existing but financially troubled institution, to use the Union's facilities while the Union itself was still awaiting its charter. This arrangement was forecast in the Union's original deed of trust. Cooper had added a clause in the deed that, should any reputable art school for women wish to utilize the Union's facilities, such a school would be welcome. The school was later fully incorporated into Cooper Union, with its founders and administrators staying on in the capacity of an advisory board.

On April 13, 1859, having already passed the charter application, the New York State Legislature passed an amended charter. On April 29 Cooper and his wife executed the deed of trust for the property. Classes began in November of the same year.

Classes offered that fall filled up during the first day of enrollment, and this apparently caught administrators and instructors by surprise. In the spring of the following year more than 1,100 students had enrolled in courses; that number reached nearly 1,500 by 1864. By 1888 the

Union had solidified its presence in the community and enrollment reached 3,000. In fact, by the latter decades of the nineteenth century, the Union was receiving twice as many applications for enrollment in the women's art school and four times as many for enrollment in the night school as they were able to accept. The first post-secondary degrees were awarded in 1864; those receiving degrees were two clerks, a coachmaker, an engraver, and a machinist, respectively.

News of Cooper Union and its practice of admitting women to classes that were traditionally intended for men caused quite a stir in the city. Cooper and Abram Hewitt, Cooper's son-in-law and the Union's chief administrator, were adamant that female students should be afforded equal footing with male students in every regard. Toward this end, they stipulated that any female students wishing to attend night courses in science could do so provided they supply a letter of recommendation from a minister or employer. This arrangement—that respectable women would be walking about in the city at night, and not just in the city but in or along the Bowery, a district renowned for its questionable activities—caused much consternation among the moral overseers of the city. Hewitt, though, was able to make a positive report on their "experiment" in 1865:

we believe that both sexes are the gainers by learning together. Of course there will be found evil-minded people everywhere, even in churches, but in six years we have not had a single case of scandal at Cooper Union, and we should as soon think of excluding the young men as the young women.

The Union's unblemished track record in regard to providing a safe environment for young women considerably calmed the fears of doubters.

Although Cooper was by no means a feminist, his views on the education of women were progressive for his time. He was keenly aware of the dilemma for working-class women in New York City's highly industrialized setting: that female laborers accounted for a growing percentage of the work force in the city and that, if these women were to be employed in the better jobs available to laborers, they would need the same access to education afforded to men, access that was usually denied them. Initially, Cooper's efforts to provide practical education for women were focused primarily on offering instruction in art and science; however, as new employment opportunities opened up for women in the fields of telegraphy, stenography, and photographic art, Cooper was always the first to suggest that courses be taught in those areas. As Peter Buckley, a historian at Cooper Union, has observed, Cooper's practical philanthropy in effect blinded him to the chauvinism of the day.

While Peter Cooper was the person responsible for the establishment and financing of Cooper Union, it was



Hewitt who was primarily responsible for the day-to-day operations of the institution, and it was under his direction that the Union evolved from the somewhat vaguely defined—albeit progressive—enterprise it was in 1859 into the more narrowly defined educational institution it is today. As secretary of the board of trustees, Hewitt oversaw finances, the hiring of instructors, and was also influential in the design of the school's educational format. Hewitt supported the idea that the Union be structured in such a way as to offer more formal instruction. The board of trustees was apparently in agreement with Hewitt, for it reiterated his concerns in its annual report of 1866.

At about this time a tradition was born at Cooper Union. When the Foundation Building was conceived, Cooper had insisted that basement space be allocated for a large lecture hall, his logic being that a room below street level would best shield its inhabitants from the commotion of the city. Lectures were scheduled irregularly in 1863; the tradition of Saturday evening lectures was in place by 1868. Although the Union had only minimal funds with which to attract potential speakers, Hewitt worked diligently to bring in professors, inventors, and newspapermen to address the "Great Hall." Topics for these lectures ranged from government and politics (by 1866 the board of trustees had decided that instruction in political science would best be accomplished through lectures in the Great Hall), travel, cuisine, and psychology, among others. Notable speakers included Abraham Lincoln, who spoke on the topic of slavery in a campaign speech in February 1860; and John Tyndall of England, who gave an awe-inspiring lecture on, and demonstration of, electric light in 1872. Attendance at these Saturday night gatherings averaged 1,500.

In 1864 it became a distinct possibility that Cooper Union would merge with Columbia University. Upon the recommendation of Hewitt, a clause had been added to the Union's original deed of trust stating that, until funds could be secured for the establishment of a polytechnic school at Cooper Union, classrooms in the Foundation Building would be available to any reputable institution for the purposes of offering such instruction. There is evidence that suggests Hewitt had had in mind all along the merging of Cooper Union with a larger institution (and, in fact, neither he nor Cooper were averse to the notion of placing the Union's facilities and resources in more capable hands). With Cooper's blessing, Hewitt, who was an alumnus of Columbia, proposed these measures to trustees at Columbia. Hewitt believed that such a merger would empower both institutions: Cooper Union would gain from a close affiliation with a respected and established institution of classical learning such as Columbia; Columbia would gain from the widening of its educational focus to include the pragmatic curriculum of Cooper Union. Hewitt was also motivated by a vision of

uniting the working classes of New York City with "men of science and learning" in one educational enterprise, thus cultivating a better social and cultural environment in the growing metropolis. To Hewitt's dismay, little interest was shown on the part of Columbia and discussions ceased.

Four years later, however, the new president of Columbia requested that a dialogue between the two schools be re-opened. This time it would be Cooper who would put an end to the possible merger (a merger that would have resulted in the subordination of Cooper Union). When, during preliminary discussions, it became apparent that very significant alterations would have to be made to the Foundation Building for it to function as the school of science and technology that Columbia wished to obtain, Cooper became stubbornly averse to the idea. Hewitt regretfully declined any further discussion on the topic.

The histories of Cooper Union and Columbia University crossed paths again in the mid-1890s. At that time Columbia moved from its location in midtown Manhattan to Morningside Heights. Hewitt seized upon the idea of purchasing the vacant educational facilities left behind by Columbia for the purposes of expanding Cooper Union (while additions had been made to accommodate more female art students in the early 1890s, all other departments were severely constrained by space). Toward this end, Hewitt sought financial backing from wealthy members of New York City society, with the goal of raising \$3 million. His argument for those who would listen was that the waiting list to gain admission to Cooper Union was long and presumably would be even longer if applicants thought they would be admitted sooner. His fundraising efforts failed, however.

Although Cooper himself was always willing to pay for any expenditures that exceeded the yearly budget, the financial resources necessary for growth simply were not available. In order to pay the Foundation Building's operating costs, rooms on the first and second floors of the building were rented out as storefronts, and this arrangement contributed even more to the school's severe shortage of space.

A successful venture at this time was the establishment of a Museum of Decorative Arts, now named the Cooper-Hewitt Museum. Founded by Hewitt's daughters, the museum enjoyed the generous support of patrons from its inception in 1895. The Cooper-Hewitt Museum fell under Cooper Union's administration until 1976, at which time it was transferred to the Smithsonian Institution.

Events that took place at the turn of the century brought financial security to Cooper Union. In addition to other gifts from patrons of the Union, Hewitt received an endowment gift of \$100,000 from Andrew Carnegie in 1901. Hewitt met with Carnegie soon after to further explain the particular needs of the Union; Carnegie then donated an additional \$200,000. After more discussions with Hewitt, Carnegie agreed to make yet another donation of \$300,000,

provided that the Cooper-Hewitt family match his donation. By restructuring family finances, they were able to do so. In the span of a year Cooper Union's endowment grew from \$958,000 to well over \$2 million. By the mid-1930s endowment had reached \$12 million.

These gifts allowed trustees to cease the practice of renting out space in the Foundation Building. The increase in endowment also led to enhancement of the school's science facilities and to the broadening of its curriculum, for nearly coinciding with the school's much improved financial status was the restructuring of the school of science to include undergraduate day courses (this was a significant step in the process of becoming the college it is today). The school of science soon after developed into the present-day Albert Nerken School of Engineering.

School administrators narrowed the Union's educational focus to that of a fully post-secondary school. The final reorganization took place in 1975 when the Department of Architecture in the Art School became a separate degree-granting entity within Cooper Union.

**Further Reading:** Historical accounts of Cooper Union can be found in the biographies of the two men most responsible for establishing and shaping the institution: *Peter Cooper, Citizen of New York* by Edward C. Mack (New York: Duell, Sloan and Pearce, 1949), and *Abram S. Hewitt* by Allan Nevins (New York: Harper, 1935).

—Christopher Hudson

# CORNELL COLLEGE

## (Mount Vernon, Iowa, U.S.A.)

- Location:** Mount Vernon, in eastern central Iowa, on U.S. Highway 30, approximately 15 miles east of Cedar Rapids and approximately 200 miles west of Chicago.
- Description:** An independent liberal arts institution affiliated with the United Methodist Church.
- Information:** Cornell College  
600 First Street West  
Mount Vernon, IA 52314-1098  
U.S.A.  
(319) 895-4000
- Visiting:** With advance notice, a visit can be arranged at most times during the academic year. There are several options for visits including Student-Parent Preview Days, Individual Overnight Visits, and Individual One-Day Visits. To learn more about these options or to make reservations for a campus visit call (800) 747-1112 or (319) 895-4477.

Unlike many institutions of higher learning, Cornell College was founded without major support from church or state or magnanimous philanthropy. (In fact, the college was into its 40th year before a donation of more than \$25,000 was received.) Cornell College grew from the dream of native North Carolinian George Bryant Bowman (1812–88), a circuit riding preacher who had come to Iowa from Missouri in 1841. While serving as pastor of a Methodist church in Iowa City, Bowman, believing that people required education as well as faith, determined that there was a need for a church school. He became one of the founders of Iowa City College, but the school closed shortly after its founding in 1843 because it lacked sufficient funds and patronage.

Undaunted, Elder Bowman still sought a suitable location for a Christian college. Legend had Bowman riding the circuit in Linn County and stopping upon the crest of the hill where Mt. Vernon now stands. Awed by the magnificent vistas of prairie and forest, he envisioned the multitudes that would come if he could build a Christian college on this spot. Bowman began to plan for his college, and, during a July 4th celebration in 1852, where “a plethora of edibles” was served, ground was broken for the new school. A month later a deed was obtained for land, and in September the Methodist Episcopalian

Church assumed guardianship of the new institution, the Iowa Conference Seminary.

In the fall of 1853, the school opened in the old Methodist Church in Mt. Vernon, and on November 14th of that year, a “large and commodious” seminary building was ready for the students who marched in procession through the town to take possession of their new quarters.

The first college catalogue listed faculty for the following posts: a professor of language; a professor of mental and moral science and belle lettres; a preceptress; a teacher of painting and embroidery; and a teacher of instrumental music. The Reverend R.W. Keeler of the Upper Iowa Conference was named president and served until he re-entered the ministry two years later. Samuel M. Fellows was then elected president.

Miss Catherine Fortner, the preceptress recommended by Governor Slade of Vermont, had been sent as a missionary teacher to Iowa, as “suitable instructors were not numerous at this time in the West.”

Dr. David H. Wheeler, professor of languages and Greek, was subsequently appointed U.S. consul to Genoa. His distinguished career included writing several books, editing the New York Methodist, and serving as the president of Allegheny College.

The faculty taught the first class of 161 students, a remarkable number considering the inadequate transportation and communications systems and the scattered settlement patterns that existed in Iowa at the time. Getting to the school presented only one hardship. Not only were students expected to rise at 5 A.M., they had to furnish their own beds, lights, and mirrors. Tuition costs were \$4.00 to \$5.00 per quarter, and board \$1.50 to \$1.75 weekly.

In 1855, the board of trustees voted to reorganize the Iowa Conference Seminary into a four-year college. Mount Vernon College was considered as a new name. Instead, the college was named Cornell after William Wesley Cornell, a wealthy New York iron merchant known for donating generously to the Methodist church. However, Cornell contributed only a small sum of money to Bowman. Cornell was a distant cousin of Ezra Cornell who would endow Cornell University in Ithaca, New York, in 1865. William Cornell was not consulted about the naming of the college and was offended. Years later, Professor William S. Norton recalled that the Cornell’s legacy consisted of “little but a good name and a few books.”

The Iowa Conference Seminary was opened as Cornell College on August 27, 1857, with 294 students, 7 faculty, and the seminary building which housed the chapel, music recitation room, and dining and kitchen areas. Some women students boarded on the second floor;





*Cornell College*

teachers and a few male students boarded on the third. The college had constructed the seminary building, and later College Hall in 1857 with the help of local residents. The brick used in construction was made on campus and sand for the mortar transported from the Cedar River.

When College Hall was completed, the seminary was converted to the Ladies' Boarding Hall. Here, for almost 30 years, women endured austere conditions, even having to pay extra to have firewood cut and brought into the building. "Old Sem," as the building was known, burned in 1924, leaving only the masonry walls. It was rebuilt in its original style and today houses the administrative offices.

A wonder of its age, Bowman Hall opened in 1885 and offered young ladies hot and cold running water on each floor, indoor plumbing, gas lighting, heat, and a dining room that could seat 200 people. Bowman Hall, now Bowman-Carter, has served as a residence for women, except during World War II when it housed men of the Naval Flight Preparatory School.

Most male students boarded in town. The Cornell Boarding Association Hall (South Hall) was built as a men's dormitory in 1873, but men preferred to be out from under the watchful eyes of the faculty so the building was designated for academic purposes. Men did not live on campus until 1929 when Guild Hall, a former hotel, was purchased by the college. Today, 95 percent of Cornell students live in one of nine residence halls or college-owned apartments.

Cornell's library has occupied various locations around campus, beginning with the seminary building in 1854. Dr. Stephen N. Fellow, residing therein noted that his room, 10 by 16 feet was his "bedroom, sitting room and parlor and not being sufficiently utilized became the library room." Donations of "readable and instructive" books were requested from friends of the institution to form the nucleus of a library collection to which students would have access at "trifling expense." Request for books appeared in each of Cornell's catalogues for its first decade.

In 1904, a Carnegie library was constructed, the first time that the library enjoyed exclusive use of a building. This building is now the Norton Geology Center and Anderson Science Museum. Cole Library, named for the college's ninth president, was constructed in 1957, the library collection having outgrown the old Carnegie building. The library underwent a major renovation in 1994-95, which allowed for automation of major library functions. Since 1904, the college library has also served as the town library. The University of New Hampshire is the only other library to serve its community in this manner.

Perhaps the most important place on campus to many alumni is the King Chapel, named for William Fletcher King who served from 1863-1908 as acting president and president. In 1874, King was vacationing in Europe when the board of trustees resolved to build a chapel.

However, \$15,000 in subscriptions was needed before work could begin. The cornerstone was laid in 1876, but money did not come in rapidly enough to pay labor and material costs, and the college treasury was drawn down. Contractors went bankrupt, and Cornell was obligated to assume the mechanic's liens. The trustees mortgaged the campus in order to secure a loan to pay off its debts. Additionally, the faculty donated one-quarter of their salaries to alleviate the debt.

Despite this precarious financial position, the chapel was completed over the next eight years. The upper story was finished when the first-floor chapel opened on April 1, 1878. By early summer 1882, the auditorium was open. Prior to the installation of electric lights in 1898, this room was illuminated by a chandelier of 350 sperm whale oil lamps which dripped; consequently, few people sat in the center section. Today the auditorium is used for assemblies, lectures, concerts, and an occasional religious service.

The chapel has many stained glass windows, but most panes are of clear glass upon which designs are painted and baked according to a process invented by Louis Tiffany.

During Cornell's first years, the college course was classical; a scientific course was added in 1860, and a civil engineering course in 1873. At one time, Cornell included a primary department (middle school) and a preparatory department which "prepared" student from two or three high schools to enter Cornell or get ready for careers in teaching or business. The primary department was discontinued in 1866 and the preparatory in 1921.

Cornell has offered courses in support of teacher education since 1872. Its department of sociology was established only six years after the University of Chicago established the first such department in the nation. Cornell was also one of the first colleges to offer a choice of degrees. In addition to its bachelors of arts and sciences degree, Cornell has awarded ■ Mistress of English Literature (last conferred in 1865), a Bachelor of Philosophy (first conferred in 1881), ■ Bachelor of School Music (conferred 1925-45), and ■ Bachelor of Special Studies (first conferred 1872). The last master's degree was awarded in 1936.

Cornell was a pioneer in women's rights; of the first class of 161 students, 57 were women. Cornell was the first college west of the Mississippi to admit women, and the women were accorded the same rights and privileges as male students.

In 1871, Harriette J. Cooke became the first woman in the United States to be awarded a full professorship with ■ salary equal to that of her male colleagues. Cooke arrived from Massachusetts, and "brought the best culture for women which New England then afforded, as well as an exceptionally forceful personality, and rare natural aptitudes for her profession." She was Dean of Women from 1860 until her resignation, and she held chairs in German and history.

Minority groups have had a presence on campus for some time. African-Americans attended high school or college, although the first African-American male was not graduated until 1909, the first woman in 1964.

Many early graduates traveled as missionaries in China, Japan, Korea, and the Philippines, and encouraged foreign students to attend Cornell. Four Japanese-Americans detained in internment camps attended Cornell during World War II. The increase in minority population on campus began in the late 1950s.

Over the years, dominant features of student social and cultural life have changed. From 1853 to the 1920s, literary societies engaged Cornell's students in weekly oration, debates, lectures, or dramatic readings followed by lively socials. The first and oldest literary society in Iowa and possibly west of the Mississippi was the Amphictyon Literary Society, founded November 18, 1853. Women on campus could belong to the Aesthesian Literacy Society, originating in 1870. This association aimed to "elevate the mind and develop the talents." At one time there were as many as 20 societies chartered at Cornell, the last of which disbanded in 1927.

Students have found enjoyment in athletic pursuits since the early days of the college. After the Civil War, Congress authorized the detailing of regular military officers on college campuses. Military drill gave male students the opportunity to develop their "health, discipline, bearing and manners at comparatively small expense." The Spanish-American War drew officers away from the campus, but after the conflict ended, Cornell was reluctant to continue the military drill. President Kind reasoned that athletics provided more variety and were better suited to developing college spirit than military drill and could be more easily adapted to women.

Cornell athletes took part in all Olympic games between 1924 and 1964; eight Cornellians were members of Olympic wrestling teams. Cornell College won the National Collegiate (NCAA) and the National AAU championships in 1947, the smallest college as well as the only private college to do so.

Over the years, Cornell has manifested a close relationship with the town of Mt. Vernon. President Lincoln's call for volunteer soldiers early in the Civil War elicited the formation of three full companies and a large percentage of a fourth from Mt. Vernon. Almost every able male student enlisted in the Union army. Only two Cornellians fought for the South.

Cornell has gained national attention for its distinctive academic calendar featuring One Course-At-A-Time (OCAAT), instituted in 1978. Under this plan of study, students study one subject for a three-and-a-half-

week term, followed by a four-day break. There are nine terms in an academic year that extends approximately from the beginning of September through May. Students must complete eight terms in one year. The ninth term can be used for travel, the pursuit of recreational or cultural activities, special study, or an additional course at no charge.

Cornell College graduates have made outstanding contributions in many fields. Among distinguished alumni are Leslie M. Shaw, governor of Iowa 1898–1902 and U.S. Secretary of the Treasury 1902–07; Raymond Asa Kent, president of the University of Louisville, 1929–43; Lee DuBridge, former president of the California Institute of Technology; Marjorie Holmes, author of inspirational poetry and fiction; James Daly, actor; Donald E. Fehrenbacher, Pulitzer Prize-winning historian; Nancy Price, author of *Sleeping with the Enemy*; and David Hilmers, astronaut.

Cornell College announced in October 1993 that it had raised over \$63 million for its Program for Cornell College, which is based on a \$20 million challenge grant made by Cornell trustee and graduate Richard Small and his wife Norma of Boca Raton, Florida. This challenge grant is the largest ever made to an Iowa undergraduate institution.

Cornell's motto *Deus Et Humanitas* (God and Humanity) was said to be Elder Bowman's personal credo, *Humanitas* being a "liberal education, humane and gentle conduct toward others, philanthropy, kindness, and politeness"—ideals to which Cornell College has been committed over the years.

**Further Reading:** The *Cornell College Catalogue 1994–96* (Mt. Vernon, Cornell College) has a brief but informative history of the college and its major buildings. Cornell's Home Page (<http://www.cornell.edu>) provides statistics and facts about the college and a self-guided tour of Cornell's historic campus. Profiles of two individuals prominent in Cornell's history, George Bryant Bowman and William Fletcher King, can be found in Pauline Grahame's "Elder Bowman," in *Palimpsest* 17 (1937) and King's own lengthy and detailed *Reminiscences* (New York: Abingdon Press, 1915). Early histories of Linn County, Mt. Vernon, and Cornell College can be found in *The History of Linn County, Iowa* (Chicago: Western Historical Company, 1878) and *History of Linn County, Iowa: From Its Earliest Settlement to the Present Time*, edited by Luther Albertus Brewer (Chicago: Pioneer Publishing, 1911).

—Kathleen M. Conley



# CORNELL UNIVERSITY

## (Ithaca, New York, U.S.A.)

**Location:** Ithaca, New York, 200 miles northwest of New York City.

**Description:** A comprehensive Ivy League university with a total enrollment of approximately 20,000 students, of whom 6,000 are pursuing graduate or medical degrees.

**Information:** Cornell University  
410 Thurston Avenue  
Ithaca, NY 14850-2488  
U.S.A.  
(607) 255-5241

The tale of Cornell University is a tale of two men, with two visions, who jointly founded one visionary university. Conflict between those two ideals (reflected in the fact that Cornell today is the only university to be both a private Ivy League institution as well as the recipient of ■ New York state land grant) as well as animosity from the established system, almost destroyed the fledgling institution. In the end, however, the commitment of the university's supporters endured, building what has become one of the world's most respected seats of learning.

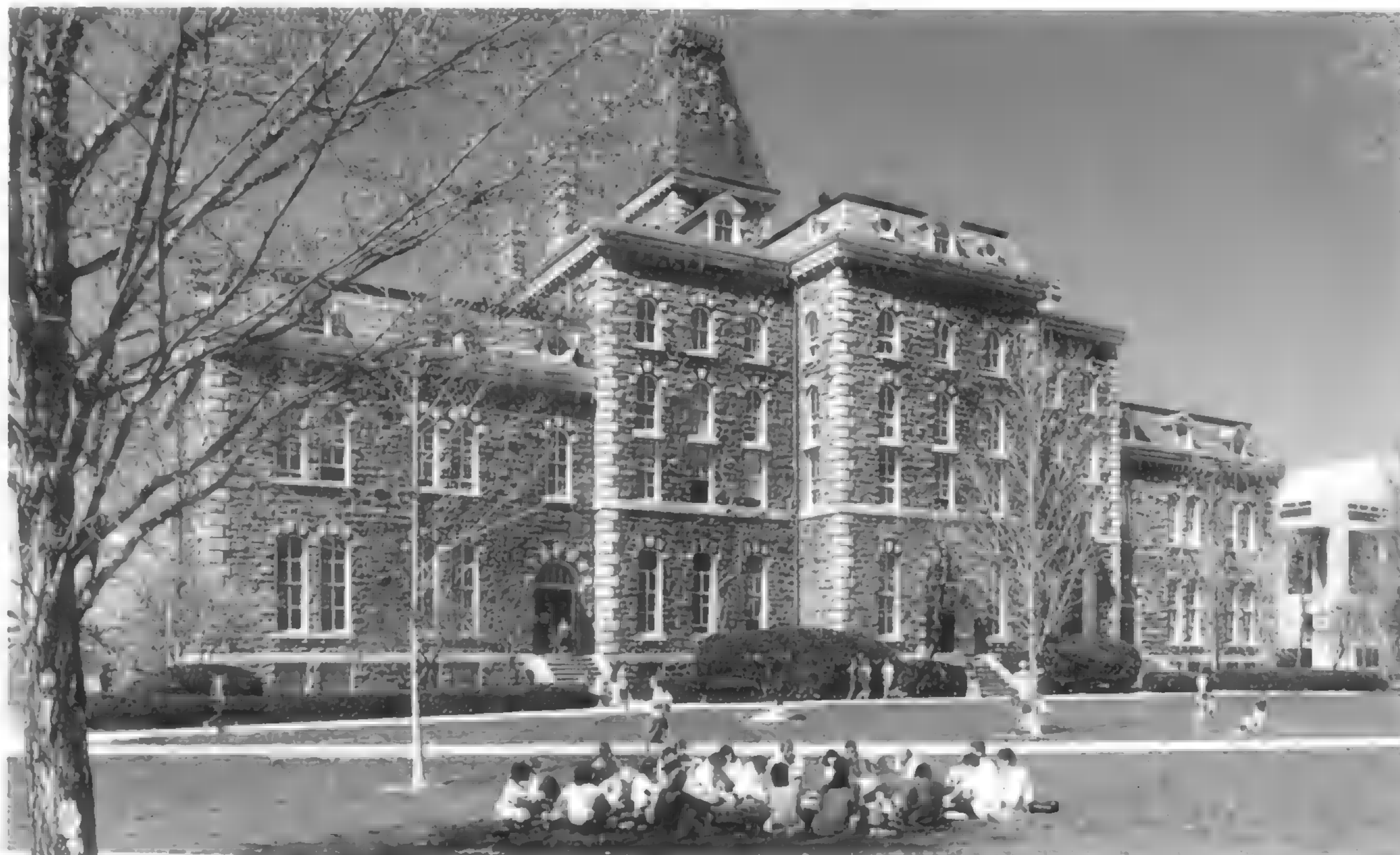
The years following the American Civil War were a period of great optimism and progress in the northern United States. Much of the nation was changing from pioneer towns to cities with business and industry, with an explosion of financial opportunities for those astute enough to recognize them. Along with the development of business and industry came an interest in and appreciation of higher education. Sixty-nine land grant universities were established following passage of the Morrill Act in 1862. Those men and women lucky enough to have made their fortunes during these boom years often saw, more clearly than others, the need for practical education. They generously endowed private universities, or better yet, started one of their own. New England, especially, had its share of these friends of higher education—idealists with a distinctive brand of liberal-democratic philosophy. These men and women believed that man by nature is good, that history evidences progress, that science is a God-given tool for understanding the universe, that man's most basic duty is to help his fellow man, and that enlightenment will conquer poverty, disease, and superstition. In short, through education and cooperation, man could build an earthly paradise.

Such an idealist was Ezra Cornell. The eldest of 11 children born to ■ potter, Cornell enjoyed little formal education. The Puritan roots of his parents showed in him: he was rigid in outlook, dour, earnest, taciturn, and possessed of a strong work ethic. He left home at 19, eventually settling in Ithaca, New York. His skills in business and the mechanical arts evidenced themselves quickly. By the age of 23 he was managing a flour mill; at 24 he designed and executed an engineering marvel of the time—a tunnel through several hundred feet of solid rock above some falls near Ithaca, thereby supplying water for numerous factories below. In 1843 he met Francis Smith, part owner of Samuel Morse's patent for the telegraph, and impressed Smith by designing a machine that could rapidly lay wires underground. Cornell's subsequent involvement in the booming telegraph industry led to his becoming chief stockholder in the Western Union Telegraph company, with an accompanying worth of about \$4 million. He was then elected to the state senate, where he met Andrew White.

Andrew D. White was born into a privileged family and, proving an eager and able student, hoped to enter Harvard or Yale. His father, however, dismayed at his son's abandonment of the family's Episcopalian faith, enrolled Andrew in the church-affiliated Geneva College in New York State at the age of 16. White was immediately advanced to the sophomore class, but he found the other students unmotivated and the classes undisciplined. The next year he feigned departure for Geneva but hid at a friend's house and prepared for entrance examinations at Yale. He passed easily.

Educationally, however, Yale proved to be another disappointment. White chafed at the set curriculum of classic languages and literatures, the educational method of reciting by rote, and the lack of any meaningful interaction between instructors and students. Following his graduation in 1853 he traveled extensively throughout Europe, and came home three years later one of the best educated men in the country. He was elected, in 1863, to the New York state senate, where he met Ezra Cornell.

White and Cornell did not initially become friendly. They shared the idealistic, egalitarian views of the liberal democrats of their era and an enthusiasm for science and higher learning, but little else. Cornell was brusque and self-righteous, an unpolished, self-made man with little use for aesthetics or frivolities. He had, for some time, envisioned a university dedicated to applied science, an institution that would help mankind solve the problems of agriculture and engineering, and usher in the glorious new age of progress and prosperity. At his university, the



*Cornell University*

benefits of this higher education would not be limited to the sons of the well-to-do. He saw clearly the need for technological education for the masses. He had, however, no patience with idlers. Solving his problems through trial and error, he had worked his way to the top. His university would be available to all—men and women, rich and poor—but it would not be free. Their education would be paid for through manual labor on the part of the students themselves.

White, on the other hand, had endured his college years by dreaming of building an American university that would rival the beautiful architecture and bountiful libraries of the great European institutions. His institution would be free of any specific religious influence and would offer a superior education, promoting intellectual discourse between students and faculty and allowing students the freedom to explore their intellectual interests. He spurned the traditional concept of the university, which was to transmit, rather than increase, knowledge, and which was only intended to serve society's elite. He dreamt of a university that would teach "truth for truth's sake," where students could choose their own curriculum.

Fate threw Ezra Cornell and Andrew White together. Both men were elected to the state senate in the fall of

1863. Cornell was appointed chairman of the committee on agriculture; White became chairman of the committee which oversaw education. Cornell had recently presented the town of Ithaca with a public library; as chair of the committee on literature, White was involved in approving its incorporation. The generosity of the gift, and Cornell's arrangement for its administration, impressed White. In choosing a board of trustees, Cornell had included political enemies as well as allies and pastors of both Protestant and Catholic churches.

The Morrill Land Grant Act had just been enacted and several existing New York colleges lobbied earnestly for the promised funds. When, in 1864, Ezra Cornell initiated a bill calling for splitting the land grant money equally between the two of them, White buried the bill and bided his time, ostensibly committed to keeping the money together. Meanwhile, however, Cornell had made the decision to commit \$300,000 to do whatever "shall do the greatest good to the greatest number of the industrial classes of my native state." He summoned White to a meeting of the trustees of one of the spurned colleges at which the demise of the institution, due to lack of the hoped-for funds, was expected to be announced. Cornell offered to donate a 300-acre farm and \$300,000 to the



college if it would relocate to Ithaca. White countered with an offer of his own. If Cornell and his supporters would apply for the whole grant, and add to it the farm and the \$300,000, White would approve that request wholeheartedly.

Thus was the university conceived. A few months later White introduced the formal bill into the state senate proposing the establishment, at Ithaca, of Cornell University. The purpose of the university was to be "the cultivation of arts and sciences and literature, and the instruction in agriculture, the mechanic arts and military tactics, and in all knowledge," with the stipulation that the university be controlled by no religious sect, that the institution would receive the Morrill Act money and Ezra Cornell's endowment of \$500,000 (he had since increased his pledge), and, each year, that one student from each state assembly should receive a full scholarship.

Immediately the plans were attacked from all sides. The already-established colleges in New York, having hoped for a portion of the Morrill Act monies, sent agents to Albany to lobby against the bill's passage. (They also encouraged media vilification of the "godless" university.) Some accused Ezra Cornell, already a rich man, of attempting to increase his fortune. Cornell refused to enter the battle, writing to his son that "I shall not go into fits to induce the State to accept \$500,000 of my money," and telling White during one senate session, "If I could think of any other way in which half a million dollars would do as much good to the State, I would give the legislators no more trouble." In fact, at one point, he threatened to give the money to Harvard. Eventually, however, opposing forces were exhausted or appeased, and on April 27, 1865, the governor signed the bill that created Cornell University.

Cornell and White promptly set about turning their dreams into reality. They quickly reached an informal agreement on respective responsibilities: White handled the educational plans; Cornell managed the finances and facilities. Cornell went west to locate Morrill Act lands. (If no federal public lands existed within a state, the state was given land scrip in the amount they were entitled to, to buy lands in other states. Cornell's share amounted to half a million acres.)

White devoted himself to writing by-laws. Mindful of the requirements of the Morrill Act (and Cornell's aspirations) that the money be devoted to education in the agricultural and mechanical arts, still committed to establishing an oasis of intellectual stimulation and freedom, and in agreement with Cornell's stated desire (and now the university's motto) to "found an institution where any person can find instruction in any study," White established the early hallmarks of Cornell University—a broad curriculum, an elective course of study, a system of young and enthusiastic resident professors, supplemented by some of the world's most eminent thinkers and scholars as visiting lecturers, and a require-

ment for physical training and manual labor (but no other code of student discipline). Since these attributes were, for the most part, a radical departure from the universities of the day, considerable attention was paid to the embryonic college at Ithaca. (Over 2,000 letters were received in response to a single letter Cornell wrote to *The New York Tribune*, explaining that students could work their way through the university doing farm or factory labor.)

White was elected the first president of Cornell University. He scoured American universities for ideas and for brilliant young men to serve on the faculty; he then departed for Europe to outfit the institution he envisioned, purchasing chemicals, microscopes, laboratory equipment, pictures, statues, scientific collections, and trunks and trunks of books. He returned with a few more professors as well. Ezra Cornell, at home, supervised construction of the buildings and supplied the rooms with furniture and chalkboards. On October 7, 1868, the university celebrated its Inauguration Day, with 412 men passing entrance examinations. Women were to be admitted as soon as appropriate accommodations could be arranged.

The fledgling university continued to receive considerable attention, much of it negative because of its implication that it was superior to existing universities, its nonsectarian status, its lay president, and a host of disgruntled political opponents of Cornell and White. The attention of those early years, however, brought some students (and faculty) to Cornell from as far away as Japan, drawn by its egalitarian stance or its innovative ideals. For the students, the early years were rugged but rewarding. Classes were seriously overcrowded; classroom temperatures were sometimes as low as 40 degrees. Dissections were performed in the furnace room. On the other hand, faculty-to-student ratios were enviable, and students were free to pursue their own intellectual interests. Courses were offered in the traditional classics, as well as non-traditional subjects. Early bulletins offered courses in not only French, German, Spanish, and Japanese languages, but Mantchoo, Sanskrit, Turkish, and Tartar as well. Cornell awarded its first degrees in veterinary medicine and journalism and the first P.h.D.s in electrical and industrial engineering. It established the first four-year schools of hotel administration and industrial and labor relations. It endowed the first chairs in American literature and American history; it established the first departments of economic entomology and of architecture.

Reality, however, took its toll on the founders' dreams. White's lofty dreams of a campus full of architectural wonders fell to the reality of a limited budget. Student behavior forced the gradual addition of a student code. The chaotic accumulation by many students of unrelated courses prompted more structured, although still flexible, curricula. The work-study program proved unworkable for most students and gradually died out. Faculty mem-



bers who had initially accepted abysmally low salaries for the thrill of being part of the new university began demanding increases. In truth, by the mid-1870s, the university's finances were desperate, exacerbated by the fact that the country was in the throes of an economic depression. The land scrip was being held in the hopes that land prices would recover, the original endowments had been spent on facilities, and at some points the treasury was so empty that faculty salaries could not be met.

The university's burdens were compounded by the fact that Andrew White, being more a dreamer than an administrator, had tired of the day-to-day struggles of actually running Cornell and had gone abroad. The trustees, and Vice President Russel, struggled to keep the university functioning, but faculty unrest grew and enrollment dropped from a high of 561 to 384. Russel was not liked by the faculty and was publicly perceived as hostile to religion. Pressure from the public, the faculty, and Russel's enemies among the trustees eventually resulted in his dismissal. The controversy, however, forced President White to come home.

Ironically, White's return coincided precisely with the onset of a scandal. Jennie McGraw (donor of the famous carillon that has rung out over Cornell's campus since its inauguration) was the unmarried daughter of an early, wealthy benefactor of Cornell, John McGraw. She inherited his sizable estate upon his death in 1877. Although McGraw was nearly 40 and suffered from tuberculosis, Willard Fiske, a professor at Cornell, courted her and wed her, amid rumors that White encouraged the match in order to bring her fortune to the university.

McGraw died two months after the marriage and indeed left the bulk of her money to the university. Mr. Fiske, however, having been advised that there were legal problems with the university's claim and, apparently feeling used, filed his own claim to the money. The Great Will Case, as it came to be called, drew Cornell again into the national limelight. Although Fiske won, only the lawyers involved really profited. And although the university lost the case, a minor ruling, stating that its endowment funds could be used for any purpose, effectively put the university back on solid ground. Other friends of the university stepped in to build the library McGraw had promised in her will. Moreover, White was back in the president's office, overseeing the fruition of his lifelong dream. Cornell again prospered.

One of the nation's largest universities on its day of inauguration, by 1909 Cornell's enrollment was second only to that of Columbia University, whose president wrote that Columbia's growth had ceased, "unless it shall . . . modify its plan of instruction in a more or less distant imitation of . . . Cornell University." Columbia was not the only college to notice Cornell's success. Slowly but steadily, private and public American universities adopted many of Cornell's once radical features. Cornell could no longer protest the archaic and elitist

nature of the older universities—through Cornell's influence, it had disappeared. The Cornell Idea had become the Cornell Tradition.

Cornell continued to grow, doubling enrollment in the first decade of the new century, finally reaching in 1913 Ezra Cornell's dream of 5,000 students (which few believed would ever be realized). The events of the new century, however—two world wars with a long and difficult economic depression sandwiched in between—shook the philosophical foundation on which Cornell and White had built their dream. The inherent goodness of man was now eminently suspect, science alone had proven desperately inadequate for world prosperity, technology had been all too easily appropriated for warfare, and the earthly paradise that those idealists had imagined as just around the corner seemed now exceedingly removed.

Cornell University, however, survived. And although inevitably changed by world events, the university's commitment remained to Ezra Cornell and Andrew White's dream of a place where students could pursue their own interests, where learning was used to benefit mankind, and where "any person can find instruction in any study." Jacob Schurman, who led Cornell into the 20th century, wrote that "a People's University, if it is true to the spirit of our age, must hold all subjects equally reputable, and provide instruction in all alike . . . The analysis of soils is as important as the analysis of literature . . . In God's universe there is nothing common or unclean, and whatever is known about it must have a place in the curriculum." Under that philosophical umbrella, Cornell added schools of forestry, medicine, and veterinary medicine, as well as programs in city planning, aerial engineering, and most controversially, home economics (at which Eleanor Roosevelt was a regular speaker).

A natural outgrowth of Cornell's commitment to practical application of scholarly instruction was the establishment, in 1902, of the nation's first collegiate program in hospitality management, later to become the School of Hotel Administration. The Hotel School offered a curriculum designed to supplement a general education with management training with a service industry focus. Although the first class consisted of only 21 students, the school met a need and, fostered by the hotel industry, interested students soon strained the school's resources. Even during the height of the lean Depression years, the Hotel School still placed all of its graduates in jobs.

The Hotel School today is an embodiment of the Cornell philosophy. Within the Hotel School alone there are nine different majors and over 150 different courses. The school is a living lab, as the school's students run the prestigious Statler Hotel, including three restaurants and a full banquet service. Students learn every facet of the hospitality industry, from acting as intern housekeepers to launching a virtual restaurant chain. The Hotel School maintains a close relationship with the industry, facilitat-

ing field trips and co-op arrangements that immerse students in the real world of hospitality and service. In addition, the Hotel School boasts the most comprehensive library of hospitality resource materials in the world.

The site on which Ezra Cornell chose to build—a hill overlooking the Cayuga Lake valley, in an area surrounded by natural gorges and waterfalls—makes the Ithaca campus one of the great natural beauty. But students today, as students in Cornell's time, are not drawn simply for beauty. Interdisciplinary study is still a Cornell hallmark, as is an emphasis on undergraduate education. (Nobel laureates can be found teaching introductory courses.) Students come from every state and over 100 countries to choose from over 4,000 courses, including 50 languages, making Cornell's wish to found "an institution where any person can find instruction in any study" an attainable goal. Cornell remains true, as well, to the founding dreams of Andrew White, who envisioned a

school where students would be motivated by their own intellectual fervor. Emily Dunning Barringer, a graduate of the class of 1897 and the first female American ambulance surgeon, wrote: "We were . . . a whole community of people making tradition. Here was an institution dedicated to mental freedom. That is Cornell's greatest gift to its sons and daughters."

**Further Reading:** Three publications cover Cornell's history: Morris Bishop's *Early Cornell, 1865–1900* (Ithaca, New York: Cornell University Press, 1962) and *A History of Cornell* (Ithaca, New York: Cornell University Press, 1962); and Waterman T. Hewett's *Cornell University, A History* (New York: The University Publishing Society, 1902).

—Wendy Sowder Wippel

# DARTMOUTH COLLEGE

## (Hanover, New Hampshire, U.S.A.)

<b>Location:</b>	In Hanover, approximately 120 miles northwest of Boston, Massachusetts.
<b>Description:</b>	A private liberal arts college enrolling approximately 4,000 undergraduate students. Dartmouth also has graduate programs in business, engineering, medicine, and 18 academic disciplines.
<b>Information:</b>	Office of Public Affairs Dartmouth College Hanover, NH 03755 U.S.A. (603) 646-1110

The roots of Dartmouth College can be traced to the unlikely source of Moor's Indian Charity School, founded in 1754 at Lebanon, Connecticut, by the Reverend Eleazor Wheelock, a Congregational minister educated at Yale. Frustrated by a lack of support for his project and ■ scarcity of Native American pupils, Wheelock determined to move the institution to the province of New Hampshire, where authorities had offered him land and support. Wheelock eventually drafted a charter for a new school, and New Hampshire governor John Wentworth then submitted it for the approval of the authorities in Great Britain. On December 13, 1769, King George III officially sanctioned an institution

for the education and instruction of Youth of the Indian Tribes in this Land in reading, writing, and all other parts of Learning which shall appear necessary and expedient for civilizing and Christianizing Children of Pagans as well as in all liberal arts and sciences and also of English Youth and any others.

Wentworth significantly amended the charter drafted by Wheelock. He dismissed the proposal to name the school Wentworth and instead suggested that it be named Dartmouth in honor of William Legge, the Earl of Dartmouth, who was secretary of state for the colonies, and both benefactor and trustee of the school. More importantly, Wentworth incorporated the institution as a college, rather than a school or academy, as suggested by Wheelock, and he removed ■ proposal to have a coordinate board of trustees in Great Britain. Notably, the charter also specified that the college would be nondenominational at a time when most colleges and universities were sponsored by churches.

In 1770, Wheelock traveled up the Connecticut River, deep into territory still settled by Native Americans, in search of a site for the college. He chose 3,300 acres centered in Hanover, and there erected ■ single log hut to house the college. The trustees elected Wheelock president, and that year he ran the school with the assistance of just one other man, Bezaleel Wood, a fellow graduate of Yale. The college's location was remote; Governor Wentworth traveled to the commencement ceremony of 1771 via ■ single trail cut into the virgin forest specifically for the occasion, and President Wheelock chose for the school motto, *Vox Clamantis in Deserto*, "The Voice of One Crying in the Wilderness." Among the four students graduated in the first class was John Wheelock, son of Eleazor, who was elected the second president of Dartmouth when his father died in 1779.

The Continental Congress awarded Dartmouth funds during and after the American Revolutionary War as ■ reward for conciliating Canadian Indians, and so the college grew quickly in size and stature. Dartmouth Hall and College Chapel were completed by 1791, and 49 men were graduated that same year. In 1797, Dartmouth opened ■ medical school, the fourth in the country, under the direction of Dr. Nathan Smith, a physician and surgeon of excellent reputation. Daniel Webster was graduated with the class of 1801 and went on to become ■ powerful congressman who backed President Lincoln throughout the Civil War. Six years later, Sylvanus Thayer was graduated; he later organized the United States Military Academy and the Thayer School of Civil Engineering at Dartmouth.

Dartmouth was literally divided by ■ power struggle between the trustees and Wheelock, who was forced out of office in 1815, and immediately replaced by Reverend Francis Brown, of the class of 1805. The following year, Wheelock persuaded the New Hampshire legislature to declare the institution public, to change its name to Dartmouth University, and to select a new board of trustees. When the college's trustees refused to relinquish power, authorities of the university forcefully seized the chapel, libraries, and museum. The college survived on funds provided by John B. Wheeler, a wealthy New Hampshire merchant and farmer, and for a short while the two corporations existed side-by-side; in August 1818, the college graduated 30 students, and the university eight.

Meanwhile, the trustees of the college had filed suit in the Court of Common Pleas, Grafton County, New Hampshire, and eventually appealed their case to the United States Supreme Court. On October 10, 1818, Webster, assisted by Joseph Hopkinson, forcefully argued for the right of Dartmouth to retain its independence from the





*Dartmouth College*

state, and on February 2, 1819, Chief Justice John Marshall announced the court's decision in favor of the college. The university was dissolved immediately, and the college reunified. The spring term opened with 150 undergraduates. Webster received fulsome praise at the especially festive commencement ceremony held that summer.

Nearly a decade of ephemeral presidents passed between the death of Brown in 1820 and the election of Reverend Nathan Lord, the college's sixth president, in 1828. Lord's principal achievements were financial; he raised \$30,000 by the late 1830s, thus bringing the college out of debt for the first time since the War of Independence. By the time of his departure during the Civil War, the college's assets exceeded \$200,000. The town of Hanover and Dartmouth College evolved gradually during the same period, as marked by the establishment at the college of the first national chapter of a Greek letter soci-

ety in 1842, and the opening of a railroad station in Norwich, just across the river from Hanover, two years later.

The citizens of Hanover were staunchly Unionist, and 652 Dartmouth alumni and undergraduates joined the Union forces when the Civil War began, the highest percentage of men associated with any Northern school. However, President Lord published several pamphlets on the divine right of slavery, and public resentment of him and his opinions mounted as sons of Hanover and the college lost their lives battling the Confederacy. Lord resigned in 1863, and the trustees elected Reverend Asa Dodge Smith, of the class of 1830, to succeed him as the seventh president of Dartmouth.

Dartmouth evolved into a modern and complex institution between Smith's election and World War I. Elective courses were added in 1869, and their number increased in 1882; the Latin Scientific Course, leading to the degree of

Bachelor of Laws, was added in 1879; the formerly independent Chandler School of Science and Arts, founded in 1851, was incorporated into the college in 1892; and the Tuck School of Administration and Finance was organized in 1900. The college plant, which for several decades lagged behind the academic development of Dartmouth, was rapidly improved around the turn of the century. By 1909, there were 35 buildings on campus, with a combined value of more than \$1.3 million, and the endowment had reached nearly \$3 million. During the same period, student enrollment jumped from under 200 to 1,107, and the number of college officers rose to 107.

The Industrial Revolution and the rise of modern science at the end of the nineteenth century brought rapid changes in American society, which were reflected in changes within the academy. The increasing number of professions was paralleled by a proliferation of specialized courses and graduate programs, and the success of German research universities spurred educational institutions in America to devote ever greater proportions of their resources to seminal science. The undergraduate college and the classical curriculum of the nineteenth century were not only eclipsed by these developments, they were threatened with extinction. The presidents of Stanford and Columbia Universities both predicted that the college would disappear from the American academy in practice, if not in name. Dartmouth was put in a particularly difficult position by these changes, for it could neither afford to ignore them, nor did it have the size or resources to keep pace with such immense institutions as Harvard and Columbia.

Ernest Martin Hopkins, of the class of 1901, was inaugurated as the 11th president of the college in 1916, and during his tenure of 29 years, he fought doggedly to maintain the centrality of the humanities at Dartmouth and of the liberal arts college in general, despite the transformation of the American academy. Hopkins' traditional ideas about education were somewhat surprising given his background. He was the first head of the school who was neither a clergyman nor an academic. Hopkins was a business executive with AT&T whose ties to the college since graduation were limited to his founding of the alumni council and editing of the alumni magazine. Despite his background, Hopkins held firmly to the notion that a college education should be designed to produce men of good character and broad intelligence, not specialized intellectuals or prepared professionals.

While the administrators of most American universities began to employ faculty members based solely on their scholarly reputations and their ability to produce original research, Hopkins assembled a faculty of qualified men devoted to teaching. Contrary to the spirit of the times, Hopkins held that a Ph.D. "tends to unfit a man for teaching," and he hired many men who had not yet completed graduate school, "before [they have] become wholly permeated by its ideals and subject to influences

antagonistic to the college purpose." For example, the name plate beneath a portrait of David Lambuth, which hangs in the college's Sanborn House, identifies him as a "Teacher of English at Dartmouth," not a professor. On the same note, a student memoir from the Hopkins era describes Lewis Dayton Stilwell, a history teacher who led provocative discussions both inside and outside of class, as having dismissed a suggestion that he publish his ideas with the remark, "[Maybe] after I have retired for a while. Right now I am working on a new lecture I think the guys will like."

The atmosphere and institutional character of Dartmouth were also deeply affected by Hopkins' devotion to the liberal exchange of ideas. At the height of the Red Scare of the 1920s, he allowed William Z. Foster, a prominent American Communist, to speak on campus, and he condemned raids against American leftists. A more famous incident, which drew the ire of alumni and the attention of the national press, involved Hopkins' defense of a politically controversial mural painted in the reading room of the Baker Library by the Mexican artist, Jose Clemente Orozco, whose leftists views were public knowledge. The mural, which covers 3,000 square feet, and which was completed in 1934, depicted the glory of pre-Columbian Aztec culture and the horrors of brutal colonization. When the National Commission to Advance American Art and the Daughters of the American Revolution criticized Hopkins and the mural, he responded, "I had not supposed that art was restricted by race or time, and I do not think that it is." Hopkins stood firm against his many opponents, even refusing Orozco's offer to alter the mural.

The Hopkins era was also a time of ostensible growth at Dartmouth, fueled by the financial prosperity of the nation that followed World War I. During the 1920s, Hopkins more than tripled the budget for instruction, and he orchestrated diverse building projects that greatly improved the plant. The Baker Memorial Library was completed in 1928, and was soon well stocked, thanks to the Sanborn Library Fund of \$1 million, which was made available the following year. Among the many other buildings completed during the same period were six new dormitories, the Sanborn English House, the Carpenter Fine Arts Building, the new Tuck School unit, and Dick's House, Dartmouth's infirmary.

John Sloan Dickey succeeded Hopkins as president of Dartmouth in the fall of 1945, and within ten years he began the transformation of the college into a research university, the move which Hopkins had so long resisted. The faculty that Hopkins had assembled in the 1920s was aging, and nearly half of Dartmouth's instructors retired between 1954 and 1966. As positions were made available, President Dickey filled them with scholars with modern views. A prominent example of the new generation of instructors at the college was John Kemeny, later elected president of Dartmouth; he was hired in 1952 to head the mathematics department when he was just 27 years old.



While Kemeny proved to be a teacher and administrator of ability commensurate with the international reputation he achieved as a scholar, it is indicative of Dickey's administration that Kemeny was given a powerful position based exclusively on the outstanding reputation he had established as a graduate student at Princeton.

A portrait of Dartmouth students, based on a 1955 report by faculty members under the auspices of the American Association of University Professors, was not an attractive one. The report said:

There prevails among many undergraduates on this campus an intellectual apathy, a negative attitude hardly to be dignified by the term anti-intellectualism. Deep-seated indifference, casual unpreparedness, and habitual absenteeism are among the symptoms. Few of our students ever do any academic work beyond the prescribed minimum.

In the 1950s and 1960s, the curriculum at Dartmouth came more nearly into line with the programs at most research universities, when its departments organized courses in such specialized subjects as international relations, Chinese language, city planning, and Latin American studies. In addition, the administration initiated an "independent reading program" in 1958, although it survived just ten years. Students were to choose from among great books, such as Plato's *Dialogues*, Chaucer's *Canterbury Tales*, etc. and were to read these works in their leisure time but with limited, if any, faculty guidance. Provost Donald Morrison voiced the suspicion that the focus of college education would be "shifted from teaching to learning, and [that] colleges [would] begin to think of their task as one of *enabling students to learn without being taught*." The historian Charles Sykes suggests that the reading program—which was advertised as a means of reinvigorating undergraduate education at a time when the emphasis on research at American universities was drawing public concern—was actually a means of reducing the number of hours that instructors were required to be in the classroom. Thus, Sykes interprets the development as symbolic of the trend at Dartmouth and other schools to appease and retain reputable scholars at the sacrifice of student concerns.

Sykes sees a certain cynicism in the administration's willingness to leave the students on their own in the reading program:

the notion of transferring responsibility to students was somewhat undermined by the administration's knowledge that student motivation was one of the chief problems at Dartmouth. Without a blush, administrators now had to extol the sagacity of the very students they had derided not only as anti-intellectual, but as apathetic, unprepared, and often absent.

Sykes also interprets the student unrest at Dartmouth of the late 1960s and early 1970s as a response to a feeling of neglect and disenfranchisement within the college, combined with the more commonly noted social and political concerns that sparked protests across the United States during the same period. However, the ostensible causes of the student movement at Dartmouth were indeed racial and political, not academic. The Students for a Democratic Society (SDS) organized protests against the Reserve Officers Training Corps (ROTC) at Dartmouth, as at other schools, because they opposed the implied complicity of the college in the Vietnam War. At the same time, Dartmouth's Afro-American Society demanded such racially specific actions as the hiring of black administrators, and the organization of a Black Studies program.

The most serious act of student rebellion at Dartmouth was the occupation of the administrative offices in Packhurst Hall by the SDS, beginning at approximately 3:15 P.M. on May 6, 1969. Later that day, Grafton County Sheriff Herbert Ash announced through a bullhorn that the students were legally bound, by an injunction hastily issued by a local judge, to vacate the building. Most of the students remained steadfast. Police from New Hampshire and Vermont were called in to remove the students by force if necessary, and at approximately 3 A.M., on May 7, they broke through the front doors and arrested 54 people, including 40 Dartmouth students, none of whom resisted. Forty-five of the protesters were sentenced to 30 days in jail, which was an unusually harsh punishment for nonviolent protesters at that time.

Professor of Mathematics John Kemeny was elected Dartmouth's 13th president in January 1970. He restored peace to the campus by siding with the protesters on most issues. Kemeny's stand was surprising, for, in 1969, he had urged stern punishment of SDS members who blocked army recruiters from their offices at Dartmouth, and in that same year he had opposed a denunciation of the war in Vietnam that was circulated by the faculty on the grounds that schools should remain apolitical. Yet when students organized a general strike at Dartmouth to protest the incursion of U.S. troops into Cambodia, Kemeny joined them. He canceled all classes scheduled for May 5 through the 10th, declaring in a radio broadcast, "There comes a time when there are priorities over and beyond that which we have traditionally considered the fundamental purpose of the institution."

Kemeny expressed his social consciousness in other ways during his tenure. For example, he successfully orchestrated the admission of women to Dartmouth, beginning with the class of 1976. In order to accommodate approximately 1,000 women without displacing any of the 3,000 men enrolled in the college, Kemeny instituted what became known as the "D-plan," a year-round academic calendar. Thus Dartmouth was able to substantially increase student enrollment without having to hire



new faculty or raise new buildings. Kemeny also called for the reintroduction of a curriculum centered around the liberal arts, which, he declared, "still seems the best hope of returning our civilization to fundamental principles of morality"; however, he was unsuccessful in his attempts to stem the tide of specialization.

David McLaughlin, an outstanding graduate of the class of 1954, succeeded Kemeny as president of Dartmouth in 1982, having served on the school's board of trustees for 11 years. Despite his close ties to the college, McLaughlin was an unlikely candidate for the presidency, and his election rankled many members of the faculty. McLaughlin was an industrialist who brilliantly oversaw the 1970s expansion of Toro, a company that builds lawnmowers, snow-blowers, and similar equipment. His background in business was not a sufficient preparation for his duties as president of the college, however. For example, he showed little understanding of the pressing issue of curriculum development felt acutely at Dartmouth; in his inaugural speech, he naively stated that Dartmouth had never wavered from Eleazor Wheelock's ideal of a liberal arts education. McLaughlin resigned in 1986, having been widely perceived as an ineffective leader, despite his considerable financial accomplishments and the introduction of a sorely needed new building program.

The trustees elected James O. Freedman, Dartmouth's 15th president in 1987, having been impressed by his previous success as the president of the University of Iowa. In October 1988, Freedman publicly declared that Dartmouth must recognize its identity as a university, despite its title, and devote its resources to research and expansion. In his first two years in office, Freedman modestly increased the size of the faculty, and helped to secure a 20 percent increase in research grants flowing into the school.

Freedman did not escape a controversy which had begun before his arrival. In 1980, the *Dartmouth Review*, a privately funded newspaper staffed by students, began publication. In 1983, the paper sent a reporter to the class of ■ black professor of music, William Cole, and subsequently published a negative evaluation of his classroom

performance. Though Cole then suspended his classes, he said, until he received an apology from the reporter, he was reprimanded later only for banging on the reporter's dormitory room door late at night. Five years later, the *Dartmouth Review* once again questioned Cole's teaching abilities. The controversy resulted in Freedman's stating that the *Review's* reporters were not covered by the First Amendment's protection of freedom of the press. *The Wall Street Journal* quoted a news release from Dartmouth's administration calling the *Review* "sexist, racist and homophobic," but it went on to editorialize that "We suspect the students' true crime was presuming to assess scholarship at their college."

Although Dartmouth is known for its undergraduate education, it has offered post-baccalaureate degrees for over a century. It conferred its first Ph.D. degree to a candidate in the classics department in 1885, but a doctoral program in the modern sense did not appear until 1960, when the college authorized the development of a Ph.D. program in the medical school, a move which led to an interdisciplinary doctoral program in molecular biology. Shortly thereafter, departmental programs in mathematics and physics were authorized, and since that time doctoral graduate study has been undertaken by all departments in the sciences and in psychology.

**Further Reading:** A well-written but tediously detailed history of Dartmouth from its beginnings through the 1920s can be found in the two-volume collection, *History of Dartmouth College* by Leon Burr Richardson (Hanover, New Hampshire: Dartmouth College, 1932). An abridgment of the same information is available in "A Description of Dartmouth College," in *The Dartmouth College Bulletin* (Hanover, volume 1, number 5, 1936). The development of Dartmouth into a university since 1920 is carefully analyzed in the provocative book *The Hollow Men: Politics and Corruption in Higher Education* by Charles J. Sykes (Washington, D.C.: Regnery Gateway, 1990).

—Christopher Hoyt

# DOSHISHA UNIVERSITY

## (Kyoto, Japan)

**Location:** On two campuses, at Imadegawa (in the city of Kyoto) and Tanabe (also in Kyoto Prefecture).

**Description:** A private Christian university that originated as an English school in 1875; the first university in Japan to admit women students; now, with around 22,000 students, one of the largest and most prestigious universities in the country, linked with a women's college and a number of schools for younger students.

**Information:** International Center  
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Doshisha University (*Doshisha Daigaku*) is the largest and best-known of a group of educational institutions, privately owned by the Doshisha Board of Trustees, which offer courses based on Christian principles, from kindergarten to postgraduate research, at four sites in Kyoto Prefecture. All these bodies trace their origins to a small English-language school, the Doshisha Eigakko, founded in Kyoto in 1875 by Niiijima Jo. Niiijima's extraordinary career spanned the years when Japan was first transformed by modernisation along western lines, and his outlook still influences the university and its associated schools. Niiijima was born (as Niiijima Shimeta) in Edo (now Tokyo) in 1843. At that date, the city was the headquarters of the hereditary Tokugawa shogunate, which had ruled Japan since 1603 in the name of the powerless emperor, then still resident in Kyoto, and in alliance with provincial *daimyo* (lords), one of whom employed Niiijima's father as ■ secretary. During Niiijima's childhood this traditional hierarchy increasingly came under threat, first from the pressures of the United States and European powers, which succeeded in opening Japan to trade and communication with the west, then by traditionalists who resented the shogunate's apparent weakness in the face of such pressures. Growing up into ■ newly turbulent and confused society, Niiijima studied at the shogunate's naval academy, where the curriculum included "Dutch studies" (that is, studies of western thought through the medium of the European language then best known in Japan), and was deeply impressed by two western phenomena in particular, a

Dutch ship which he saw in 1860, and extracts from the Bible, which he read in a Chinese translation.

Even though overseas travel was still forbidden, in July 1864 Niiijima boarded ■ U.S. ship, the *Berlin*, at Hakodate, one of the few ports open to foreign trade, and transferred at Shanghai to the *Wild Rover*, on which he served as a cabin boy. After arriving in Boston, Massachusetts, in July 1865, he was sponsored by Alpheus Hardy, the ship's owner, as a student at Phillips Academy, Andover, between October 1865 and June 1867. He converted to Christianity in December 1866. By adopting a religion which was then still illegal in Japan, he signaled his final break with national traditions and began his career as an advocate of internationalist and humanist principles.

Niiijima went on to study philosophy and geology at Amherst College from October 1867 until he was graduated in 1870, the first Japanese person ever to earn a degree from ■ western university. After studying at Andover Theological College between October 1870 and June 1874, he became the first Japanese to be ordained as a Protestant minister, joining the Congregational Church (now the United Church of Christ). He was known at that time as Joseph Hardy Neesima and dressed in western clothing. Yet events were to show that he had by no means abandoned his commitment to his native country, where the shogunate had been overthrown in 1868 by a regime that sought to combine carefully controlled reforms, such as permitting Christian worship and introducing western industrial and administrative practices, with ■ revival of national culture.

During 1872 Niiijima had been employed as an interpreter by Tanaka Fujimaro, who was investigating American and European educational systems as a member of the Japanese government's Iwakura Mission. However, rather than join hundreds of other Japanese of his age and background in working directly for the state, Niiijima preferred to retain his independence and his international connections. He received \$5,000 in donations through the Congregational Mission Board, meeting in Rutland, Vermont, in October 1874, and then returned to Japan, after an absence of ten years, in the following month. His intention was to establish a school offering instruction in English and in Christianity at Osaka, a plan supported by the government minister Kido Takayoshi, among other notables, but the hostility of that city's administration forced him to turn to Kyoto instead. In spite of Kyoto's historic status as the imperial capital (up to 1868) and as the center of Japanese Buddhism, he received valuable support from Yamamoto Kakuma, chair of the Kyoto prefectural assembly (whose sister he married in January 1876).



The Doshisha Eigakko opened in November 1875. "Doshisha," coined by Nijima from three Chinese characters, literally means "same-purpose-association"; "Eigakko" means "English School." This was perhaps an ambitious designation for what began as a class of eight students learning the language under two teachers, Nijima himself and an American missionary, Jerome D. Davis. In April 1876, they were joined by Dr. Dwight Whitney Learned, a Yale graduate, and in September they moved the school to the Imadegawa site that is still the center of Doshisha activities. This second Eigakko, which began with just two small buildings for teaching, next to a dining hall, included among its first intake most of the members of the so-called "Kumamoto Band" of 35 Christian converts. These were students from the city of that name in Kyushu, who had studied English and Christianity under Captain Leroy Lansing Janes and other Americans until the closure of their Yogakko, or School of Western Studies, earlier in 1876 under pressure from local traditionalists.

Whether or not Nijima intended it as a deliberate riposte to such opponents, he must have known that his opening of a sister institution, officially recognised as Doshisha Jogakko, or Women's School, in April 1877, would cause controversy in a country where women had traditionally been prevented from studying outside the home. The school's growing reputation was further enhanced during 1878, when Learned gave the first lectures in economic theory ever heard in Japan. During the remaining 12 years of his life, Nijima maintained a consistent policy of expanding his school and making innovations in its curriculum at the same time as seeking official recognition and social respectability for its activities. In February 1883 the two schools were incorporated within the Doshisha trust, with Nijima as its president; in September 1884 Doshisha's first brick building was completed—it is now used by one of the junior high schools associated with the university and is protected as an Important Cultural Property. The university chapel followed in June 1886 and its library in November 1886 (both are also now Important Cultural Properties). In November 1888 Nijima launched his campaign for university status, with financial assistance from alumni and from some local and national politicians, and in July 1890 the Harris Rikagakko, or school of science, was opened with funding of \$10,000 from an American businessman, J.N. Harris (in yet another brick building which is now an Important Cultural Property).

Nijima died in January 1890, his hopes for university status for the school unfulfilled, but his own reputation as an educational pioneer secured. The importance of individual self-fulfillment, combined with commitment to social activism, which he and his American colleagues had tried to instill in their students, was to have its greatest impact on Japan in the generation following Nijima's, as Doshisha graduates, members of a very

small elite of Japanese who had experienced higher education, rose to prominence in a variety of professions. Abe Isoo, for example, one of the Kumamoto Band, became a founding member of Japan's first Socialist party in 1901, and he was later a campaigner against war and militarism and a prominent adviser to the nascent labor movement. More conventionally, Ukita Kazutami, another member of the band, taught at Doshisha itself between 1894 and 1897 before becoming a teacher of political theory at what is now Waseda University in Tokyo; he was a major influence in the brief period of constitutional liberal politics known as "Taisho Democracy" between 1912 and 1926.

Of all the Kumamoto Band, the best known, outside the rather narrow circles of Japanese Christians (who still number less than 1 percent of the population), are probably the Tokutomi brothers, Iichiro, whose pen name was Tokutomi Soho, and Kenjiro, who wrote as Tokutomi Roka. During his long career as a publisher, magazine editor, and historian, Soho moved from a position favoring liberal democracy for Japan to support for militarism and nationalism, starting out as a popular radical journalist and ending up banned from public life during the U.S. occupation. Roka, by contrast, was among the first Japanese writers to seek personal expression through writing serious fiction; he became notorious both for publicly rejecting his older brother's traditional authority over him, and later for visiting the Russian writer Tolstoy and then trying to create a utopian community based on his anarchist principles. Both brothers abandoned the conventional Christianity they had taken up in Kumamoto, yet both retained in their divergent careers a commitment to public affairs and a self-confidence in asserting their views, which might well not have been encouraged or developed in any other Japanese educational institution of the time.

Yet another Kumamoto student, Kozaki Hiromichi, had gone to Tokyo after graduation from Doshisha to take part in Christian missions there but returned in 1890 to succeed Nijima as president and to help to continue his legacy of academic innovation and independence from Japanese nationalism. One year later, the Doshisha Seiho Gakko (school of politics and law) was established and quickly became a vehicle for introducing American and European concepts in the social sciences.

In 1893, a symbol was created for Doshisha, one that recalled Nijima's association with Amherst College in the United States. The symbol consists of three inverted equilateral triangles in white on a purple background, thus uniting the colors of Amherst College to an Assyrian symbol of the Earth. The design can also be interpreted as a representation of the Christian trinity or of the cultivation of mind, spirit, and body. A more tangible representation of Doshisha's religious orientation came in 1894, when the Clark Theology Building (now Clark Memorial Building) was opened to house what was still the school's largest and, in Japanese terms, most distinctive faculty.



As the twentieth century began, government regulations were to have a major impact on Doshisha. In 1904 the trust was required to limit its activities to its theological school and its liberal arts school under the terms of the government's *Senmon Gakko Rei*, an ordinance regulating the group of "specialist schools" to which Doshisha, still not a university, was compelled to belong. In 1912 the trust was permitted to reorganise its schools as a single "*Daigaku Senmon Gakko*," a specialist school with university characteristics but without university status. It was composed of three faculties (theology, politics and economics, and English literature), and had a preparatory department and a women's college.

From 1919, when Learned was appointed as the last non-Japanese president of the school (but not of the trust), Doshisha entered what can be described as the second phase of its history. Its pioneering role inevitably declined in relative importance as more and more institutions of higher education were created throughout the country, while its graduates' influence also tended to decline as Japan moved from the enthusiasm for westernisation typified by Nijima's outlook into a period of increasing nationalism. At first, expansion and innovation remained the school's hallmark. In 1920 university status was achieved at last under a law passed by the Diet two years before, making Doshisha the only university in Japan to have a Christian theology department, and a graduate school was established. Two years later the trust created a separate *Keizai Senmon Gakko* (school of economics) at Iwakura in Kyoto, the first Doshisha institution to be separate from the Imadegawa campus; it also formalised its long-standing relationship with Amherst College, which still operates staff and student exchanges with Doshisha. In 1923 it took a step which even Nijima had not contemplated, and which some universities in the west were then still resisting: it became the first Japanese university to admit women to four-year courses aimed at full degrees (although the Women's School continued to offer two-year diploma courses).

As an independent, Christian institution, with close ties to the United States, Doshisha University could not avoid coming into conflict with the authorities during the 1930s, when Taisho Democracy gave way to a series of weak and corrupt governments presiding over militarisation at home and colonial wars in China. In 1935 Yuasa Hachiro, a nephew of the Tokutomi brothers who had himself graduated from Doshisha in 1908, was appointed as the tenth president of the university, but he left only two years later because he found it impossible to accept the increasing power of the military training instructor seconded to the campus by the army. While he took refuge in the United States (where he had once been both a ranch hand and a university student), Doshisha was forced into line with other universities, as Japan launched its war on the United States and the European colonial powers.

Kyoto escaped bombing during World War II but was as affected by shortages of personnel and resources as other cities. By 1944 Doshisha was reduced to a single liberal arts faculty and a separate, temporary industrial school, teaching electrical and chemical engineering in support of the war effort. Yet it was also in 1944 that the university was able to establish what is now its Institute for the Study of Humanities and Social Sciences (*Jinbun Kagaku Kenkyusho*), one of the leading research bodies in these fields in Japan, evidence that private universities retained some freedom of action even in wartime.

In 1946 Yuasa Hachiro returned from exile to resume the leadership of the Doshisha group of schools. Working within the liberalised education system introduced by the U.S. occupation authorities, the Doshisha trust established two junior high schools—one for boys and one for girls—in 1947 and a high school, a girls' high school, and a commercial high school in 1948. It then reorganised the university once again. Faculties of theology, letters, law, economics, and education were created in 1948; engineering and commerce were added in 1949; and the graduate school was reopened in 1950. After the education faculty was closed in 1951, the university developed the undergraduate teaching structure it retains today. In 1950 Yuasa departed for Tokyo, where he became founding president of the International Christian University, now one of Doshisha's friendly rivals in the select group of privately owned, church-linked universities with international networks of alumni and supporters.

Doshisha University now began what might be called its third—and current—phase. On the one hand, it operates on a significantly larger scale than ever before, and with a broader range of courses, but as an integral part of a greatly expanded higher education system, for which it receives a subsidy from the national government amounting to around 9 percent of its budget. On the other hand, it maintains its distinctive traditions—including its theology department, its chapel, and its Amherst connection—but in a secularised Japan where its religious character probably matters less to most of its students (and perhaps staff) than its high placing in academic league tables, its prestigious and beautiful Kyoto location, and its cosmopolitan atmosphere.

Between 1951 and 1987 it hosted the Kyoto American Studies Seminar jointly with Kyoto University (a state institution); in 1958 it created its own Center for American Studies; and in 1973 it inaugurated the Associated Kyoto Program, which brings students from 15 liberal arts colleges in the United States to Doshisha for their junior years abroad. In another area of scholarship, its Science and Engineering Research Institute, founded in 1959, has become an important center for research on recycling and other aspects of the new discipline of environmental engineering. In addition, in 1986 several departments of the university were moved to a second campus at Tanabe, outside the city of Kyoto, which they

share with the Doshisha International High School (opened six years earlier), Doshisha Women's College, and one of the four Doshisha junior high schools.

One hundred and twenty years after the original Doshisha Eigakko opened on what is now the Imadegawa campus, the trust which Niijima founded has become one of the most successful academic enterprises in Japan. Thousands of students have benefited from its activities over the years and gone on to make valuable contributions to Japanese society. It is undoubtedly a very different institution from the purely Christian academy Niijima envisaged. Whether the university can still entirely serve the same purpose from which its name originated remains to be seen. Even so, while Doshisha has changed as modern Japan has changed, its survival and flourishing in an environment that is at best largely indifferent and at worst is

hostile to its founding principles has been a remarkable achievement.

**Further Reading:** Tokutomi Kenjiro's 1901 novel *Omoide no ki*, which includes a memorable account of student life at Doshisha in its early years, has been translated into English by Kenneth Strong as *Footprints in the Snow* (Rutland, Vermont, and Tokyo: Charles Tuttle, and London: Allen & Unwin, 1970). Irwin Scheiner's *Christian Converts and Social Protest in Meiji Japan* (Berkeley: University of California Press, 1970) covers the careers of a number of Doshisha professors and alumni among the wide range of both moderate and radical Japanese Christians.

—Patrick Heenan

# DUKE UNIVERSITY

## (Durham, North Carolina, U.S.A.)

- Location:** Durham, North Carolina, 275 miles from Washington, D.C.
- Description:** A private university, enrolling approximately 11,000 students in undergraduate, graduate, and professional schools.
- Information:** Director of Undergraduate Admissions  
Duke University  
2138 Campus Drive  
Durham, NC 27706  
U.S.A.  
(919) 684-3214  
Fax (919) 681-8941
- Visiting:** There are regularly scheduled orientations for prospective students and guides for informal visits. Visitors may sit in on classes and stay overnight at the school. To arrange a visit, contact the Hosting Office at (919) 684-3214.

At the beginning of the nineteenth century, North Carolina had no public education. To assist families that could not afford private schools, in 1826 the state treasury established funding for common schools. The schools proved academically unequal to private schools, and private schools continued to thrive. In 1840, there were 2,700 private academies in the South, twice the number of those in New England. At the beginning of the nineteenth century, citizens of North Carolina decrying a 75 percent literacy rate amongst whites, began a vigorous program of establishing academies. From the humble beginnings of one such private academy—Union Institute in Randolph County—Duke University was born.

Union Institute was created in the town of Trinity when local Quaker and Methodist communities in Randolph County set up a society to raise money and plan curriculum for a secondary school that would ensure that their children grew up literate, an uncommon goal in their agricultural section of the state. The first constitution of the society stated:

We the people of Randolph and adjacent counties . . . believe that ignorance and error are not only the bane of religious but also of civil society, that they oppose a formidable front to the march of internal improvement, as well as to all the arts and sciences

and rear up an almost impregnable wall between man and the happiness he pants after.

In 1839, classes began with a mixture of Quaker and Methodist boys and girls. But by 1851, Union Institute was converted to a normal college for the education of teachers, which was increasingly the accepted method of training teachers. The school became officially affiliated with the Methodist Church when the Quaker students moved to the newly developing Quaker boarding schools in 1856. It then set about to graduate its quota of “teachers and preachers,” a major goal of southern colleges of the day. In 1859, its course changed once again from a teacher-training college to a liberal arts college, whereupon its name was changed to Trinity College. Braxton Craven, Trinity’s first president, resided over and substantially guided these changes until his death in 1882. He was followed by the brief tenure of Marcus Wood, 1883–84, and a period of three years where no president was appointed.

Trinity changed with the leadership of John Franklin Crowell, president from 1887 to 1894. Possessing a first-class education from Dartmouth and Yale and an abiding commitment to raising the standards of American post-secondary education, he took the helm of a school in rural North Carolina characterized by constant financial struggles, few resources, a faculty uninformed by new teachings, and a narrow view of the aim of education. Crowell began restructuring the curriculum of Trinity College by using European and the best American schools as models. This meant emphasizing a free exchange of ideas, rather than the traditional recitation of information. He bolstered the study of science, which was quickly becoming the new word in higher education. Crowell was the first to plant the seeds at Trinity of the university idea.

Crowell’s subsequent changes to the curriculum were dramatic and beneficial, but the provincialism of the town of Trinity interfered with the kind of academic and intellectual contact needed for the optimal exchange of ideas. The college was academically behind the other developing institutions in the state, such as Wake-Forest College, Davidson College, and the University of North Carolina at Chapel Hill. In addition, it was in debt much of the time. Crowell saw the school’s rural location as a problem. By locating the college in a larger city, it opened access to jobs, endowment opportunities, and a more educated population.

Crowell permanently changed the character and the future of the small, rural school; by relocating, Trinity College was thrust directly in league with the Duke fam-





*Duke University*

ily, millionaires many times over from the manufacture of tobacco.

The Duke family of Durham rose from extremely humble beginnings as tobacco farmers. Washington Duke, after the Civil War, recognized the potential of bright-leaf tobacco as a high-quality strain of smoking tobacco, and maximized its production and distribution, which made the family the holders of one of the few fortunes in the state. Washington Duke followed the tenets of Andrew Carnegie who believed that those fortunate enough to attain great wealth should give much of it to the public.

The other tobacco fortune in the city belonged to Julian Carr, who owned the powerful Durham Bull Tobacco Company, and who had declared that he wanted a Methodist University in Durham and was already a trustee of Trinity. The two families' confluence of a common religion and massive wealth proved fortuitous for the struggling Trinity College. In 1892 the two magnates, hearing of the efforts of the college to occupy a site in Raleigh, combined their resources; with Duke offering \$85,000 for buildings and Carr providing 60 acres of his land, they spirited the college away from all other bidders and brought the college 90 miles to the thriving industrial city of Durham.

As the patriarch of the family and a staunch Methodist, Washington had actually been supporting Trinity since the mid-1880s. At first, the contributions were given as a matter of course along with the many other donations to worthy causes. But after the college moved to Durham and became more solid academically, Washington's sons, James and Benjamin, became more enthusiastic about the institution and took significant pride in its scholarly advances. Ben Duke had written friends that he believed Trinity had come to the point "to warrant the claim that it is the best institution of learning in the South." In 1903, both his son and daughter were attending the school.

Growth, sophistication, financial support, stringent academic guidelines, and a student body from all over the South, brought new challenges. In 1903 an esteemed and long-time Trinity faculty member, John Spencer Bassett, began a discussion in print on the state of race relations in the country, especially in the South. Bassett wrote an editorial in a student scholarship publication, the *South Atlantic Quarterly*, "The place of every man our American life is such a one as his virtues and capacities may enable him to take. Not even a black skin and a flat nose justify caste in this country." Bassett survived the ensuing firestorm of protest, especially from southern alumni, and the numerous calls for his resignation, due to the good graces and sensible attitudes of both the Dukes and the college administration.

The so-called Bassett Affair is legendary in the history of Trinity College; it was the first test of the institution's stand of academic freedom. The incident laid ■ foundation of liberalism. A few years later, President Theodore

Roosevelt visited the campus and gave ■ speech to 15,000, citing the Bassett Affair:

You stand for all those things for which the scholar must stand if he is to render real and lasting service to the State. You stand for Academic Freedom, for the right of private judgment, for a duty more incumbent upon the scholar than upon any other man, to tell the truth as he sees it, to claim for himself and to give to others the largest liberty in seeking after the truth.

During the first quarter of the twentieth century, Trinity began ■ law school, made further improvements to its curriculum, added athletic programs, accommodated more graduate students, and increased its library holdings. In 1908 the North Carolina Methodist Conference included Trinity and Vanderbilt under the classification of university.

Although women had been at least ten percent of each class since the mid-1890s, there was a movement afoot in 1904 to build an entirely separate school for them. The president at the time, Dr. James Kilgo, insisted that unless there was a separation of sexes in the classes, men would not come to Trinity. The administration didn't implement the idea until the greater number of female applicants after World War I spurred sentiment that women's education should be separate but equal.

The college was growing and the university status was taking hold. Trinity had become a primary recipient of funds from the Duke family, and it was clear that by the mid-1920s, James B. Duke had ambitious goals for the college. Duke reflected on why he was so invested in the university:

I was born in North Carolina and I am sixty-six years old . . . It is time I was beginning to think about a monument. I want to leave something to the state that five hundred years from now people can look upon and say Duke did that. Every man owes something to the state he was born in, and this is what I want to leave North Carolina.

In December 1924, James B. Duke endowed over \$40 million to the institution. When its name was changed to Duke University, speculation was that J.B. Duke "bought himself a university." Administrators at Trinity College were thinking of a name change as early as 1890 because there were several other institutions with the same name. When speaking of the reasons for his gift, Duke said that he "recognize[d] that education, when conducted along sane and practical, as opposed to dogmatic and theoretical lines, is, next to religion, the greatest civilizing influence."

The new university set out to develop Trinity College for men, ■ coordinate college for women, ■ law school, a school of religious training, ■ school of education, a

school of business administration, a school of engineering, ■ graduate school of arts and sciences, and a medical school.

From its simple unambitious beginnings as Union Institute, Duke University now had money, stature, and presence. The institution's aims, as outlined at the time, exhibited a broad scope academically and its curriculum was directed at fulfilling the needs of ■ range of students from different regions and economic classes. No longer a repository for training teachers and preachers from the South, Duke University shed its parochial beginnings and began to fulfill the aspirations of earlier Trinity College presidents, that it become a major, voluntarily supported research university, perhaps the first in the South. The new charter stated:

This university in all its departments will be concerned about excellence rather than size; it will aim at quality rather than numbers—quality of those who teach and quality of those who learn. It will be developed with a view to serving conditions as they actually exist. It will be for the use of all the people of the state and section without regard to creed, class, or party.

Additional acreage was acquired for expansion. In fact, the university came to own 8,000 acres of woodland, much more than was originally needed, but which proved quite useful for further expansion and for creating the over 7,000-acre Duke Forest. Buildings were planned for two separate campuses: the East Campus became the Women's College, with several new buildings constructed in American Georgian style, similar to the structures and design of Jefferson's University of Virginia; the West Campus housed several quadrangles containing castle-like buildings, built from grayish-green, North Carolina stone in a distinctive Tudor Gothic style. West campus, the home of the men's Trinity College and graduate and professional schools, was dominated by the 210-foot tower of Duke chapel, containing 77 stained-glass windows and a magnificent 5,000 pipe organ. The leading landscape design firm in the nation, Olmsted Brothers of Boston, was hired to lay out the grounds. The founder of the firm, Frederick Law Olmsted, designed Biltmore Gardens in Asheville, North Carolina; Central Park in New York; and many other well-known outdoor settings.

An interesting note is that one of the architects on this project in the heart of the South was Julian Abele, an African American. He was the designer of Harvard's Widener Library and the Philadelphia Museum of Art.

In addition to physical expansion, there was also academic expansion. A medical school was established in 1930, the School of Law was reorganized, and new graduate programs were added. But President William Few (Duke University, 1924–40; Trinity College, 1910–24) believed that the heart of a great research university lay in

the undergraduate college of arts and sciences. So he began to scour academic departments throughout the country and abroad, to hire a superior teaching force; he also set about to upgrade the requirements for acceptance.

Besides emphasizing the importance of the arts and sciences, Few, in accordance with James B. Duke's dictum about the importance of religion, was also strongly committed to maintaining the religious dimension in campus life. By keeping ■ friendly, but not constraining relationship with the Methodist Church, he believed that religion could be a subject for study and an aspect of life.

Though he himself was deeply religious, Few would not allow religious zealots to compromise his equally important and dearly held convictions about academic freedom. Duke's location in the so-called "Bible Belt" often left the institution vulnerable to the assaults of fundamentalists. In the wake of the Scopes trial in Tennessee, there was an outcry from certain quarters in the South for laws against teaching Darwinian theories about evolution. Few, at a meeting of the Educational Association of the Methodist Episcopal Church in 1927, introduced a resolution that expressed opposition to all legislation that would interfere with the proper teaching of scientific subjects in American schools and colleges. Few believed that the School of Religion should guide the entire institution toward the "further duty of mediation between the religious conservatism of this region and the great intellectual ferment of the age" but not dominate its modes of inquiry.

Trinity College had long aspired to add a medical facility because, for one, North Carolina did not have a full-fledged, four-year medical school. When the aspiration came to fruition in 1930, hardly anyone suspected that it would become one of the strongest areas of the university. Duke University Medical Center now comprises clinical, training, and research programs, and the hospital is a major tertiary care facility. The center has ■ comprehensive cancer center, an eye center, ■ federally supported general clinical research unit, and other highly advanced treatment centers.

Separate but equal worked for the women's coordinate college at Duke from when the concept was established in 1924 and took root in the Georgian-style East Campus, until 1972 when the idea of separate education for women became a relic. Under the leadership of Alice Baldwin as first president, the women's college thrived as an intellectual beacon for southern women. Baldwin encouraged students to broaden their horizons of expectations and consider careers as well as marriage. Given the norms and expectations of the times, Baldwin never denigrated the role of homemaker and mother and made sure the women students conformed to the strict Methodist rules of the time, which included no smoking, no dancing, and maintaining utmost propriety. Of course, these rules were enforced far more stringently on the female students than the male students.



The Quakers, the Methodists, the visionary presidents of Trinity College and later Duke University, and the Duke family all contributed to the double goal of creating a major research university in the South and a place where religion could thrive. Duke is now a major center of learning, with many of its schools and departments consistently ranked among the nation's best. Its library holdings are the eighth largest among private universities in the United States, with 4.5 million volumes. The Duke University Museum of Art contains collections of medieval sculptures, Greek and Roman antiquities, African art, American and European paintings, the Nancy Hanks collection, and other fine acquisitions. Duke University Press, founded in 1921, publishes scholarly books, journals, and software in the humanities and social sciences, as well as policy studies, regional and trade books, and textbooks. *The South Atlantic Quarterly*, mentioned above as the outlet that Bassett used to speak out against discrimination in 1903, is the second oldest humanities journal in the nation.

The Duke Forest covers 7,700 acres and is used for research, protection of wildlife and rare plant species, and recreation. The Primate Center is the only university-based facility in the world devoted to the study of prosimian primates and is the world's largest colony of captive endangered primates. The mission of the Duke University Marine Laboratory at Beaufort, North Carolina, is educa-

tion and research in basic ocean sciences, marine biomedicine, biotechnology, and coastal resource management.

All of these attributes and properties of the university exist comfortably alongside the Duke Divinity School, a major training facility for Methodist clergymen, which also anchors the university as a meaningful and contributing member of the community. Few's vision that the great purpose and aim of the university was to bring together education and religion in the "generous service of humanity" appears to have been borne out in succeeding generations.

**Further Reading:** John Franklin Crowell's *Personal Recollections of Trinity College, North Carolina, 1887-1894* (Durham, North Carolina: Duke University Press, 1939) covers Crowell's seven years as president of Trinity College and the developments he oversaw. Douglas M. Knight's *Street of Dreams* (Durham, North Carolina: Duke University Press, 1989) reviews the dramatic changes that the decade of the sixties brought to the campus. Also drawn from that decade is a collection of narrative and verse by William Blackburn, *A Duke Miscellany* (Durham, North Carolina: Duke University Press, 1970). *James B. Duke, Master Builder* by John W. Jenkins (New York: Doran, 1927) gives insight to the major benefactor of the university.

—Marcia Horowitz

# EBERHARD KARLS UNIVERSITY OF TÜBINGEN

## (Tübingen, Germany)

<b>Location:</b>	Tübingen, Germany, 25 miles south of Stuttgart.
<b>Description:</b>	A state university enrolling approximately 26,000 students at all levels.
<b>Information:</b>	<p>Zentrale Studienberatung Universität Tübingen Wilhelmstrasse 11 72074 Tübingen Germany (7071) 29255</p> <p>Akademisches Auslandsamt Universität Tübingen Nauklerstrasse 14 72074 Tübingen Germany (7071) 295403</p>

**Guided Tours:** There are no official university tours

When Count Eberhard of Württemberg founded the University of Tübingen in 1477, he accepted a great risk. His territorial possessions—and thus his income base—comprised only about half of the later kingdom of Württemberg, and the new university was located in an area that was already well provided with academic institutions, notably at Basel, Freiburg im Breisgau, Heidelberg, and Ingolstadt. The count, however, intended to have his own school, not only because of the attendant prestige, but also in order to control the formation of the officials who would administer his country.

In the beginning, financial arrangements followed the custom of the day. Part of the endowment of the collegiate church of Sindelfingen, located in the vicinity, was dedicated to the university. Pope Sixtus IV agreed to this transfer of funds in a bull dated May 11, 1476. As a result, Abbot Heinrich Fabri of Blaubeuren, acting as papal legate, on March 11, 1477, officially declared the university to have legal existence. On February 22, 1484, Emperor Frederick III granted the necessary imperial confirmation.

Lectures were held starting October 1, 1477. The original teaching body consisted of three professors of theology, three each of canon law and secular jurisprudence, two of medicine, and four masters of the humanities. Being an independent ecclesiastical corporate entity (*uni-*

*versitas studii generalis* [university for general studies]), the university possessed authority to change its constitution and to adjudicate the law within its confines. It was autonomous in financial and administrative matters, could act as its own commercial agent, and enjoyed freedom from taxation. When in 1482 the financial ties with the Sindelfingen institution were fully severed, it could look forward to a prosperous and successful future. A refurbished constitution, adopted on December 20, 1491, established a pay scale for the professoriate. The founding period of the university had concluded.

The effort that had gone into creating the statutes of the University of Tübingen quickly received recognition elsewhere, as they served as a model for the constitution of the University of Wittenberg in Saxony. Founded in 1502, the University of Wittenberg for generations thereafter was considered an off-spring of the school of Tübingen. Both institutions were headed by a *rector*, who was assisted by a chancellor. Until 1817 the chancellor was identical with the professor who occupied the first chair of theology; beginning with the Reformation, he also acted, in the name of the sovereign, as the official supervisor of the university. Financial matters were directed by a *syndicus*; at his side as a controlling body he had a *collegium deputatorum*, which consisted of four representatives of the faculties.

Soon Tübingen was able to hire as teachers a number of prominent scholars who earned the university substantial renown. Among them were the jurist Johann Vergenhans, author of a world chronicle; the theologian Gabriel Biel, propagator of the pietistic movement of *devotio moderna* in southern Germany; Johannes Heynlin, one of the most important preachers of his time; the philosophical traditionalist Konrad Summerhart; the poet Heinrich Bebel; the mathematician and astronomer Johannes Stöfler; and for a short time also the humanists Johannes Reuchlin and Philipp Melanchthon. All these men attracted students in great numbers. An imposing building, the *Bursa*, newly erected in 1478–79, provided lecture rooms and residential facilities. It was characteristic of the tolerant and scholarly atmosphere of the institution that representatives of the two controversial intellectual trends of the late Middle Ages and the early modern period, nominalists and realists, peacefully lived and taught in the same place. Not before the nineteenth century would the humanities radiate again from Tübingen as strongly and as far as they did during the time leading up to the Reformation.

In 1534 Duke Ulrich—Württemberg had become a duchy—introduced the Reformation. Since the university



*Eberhard Karls University of Tübingen*

opposed the move, several reformers had to be brought in from outside. Through Melanchthon, who stayed on for a month, the change received a Lutheran tilt. A substantial number of professors still resisted the Reformation and had to be dismissed. The refusal in particular of its chancellor, Ambrosius Widmann, to adopt the new faith created great problems for the university, as it could not confer degrees without his cooperation. It was only in 1556 that Widmann yielded his rights to the university senate.

One consequence of the Reformation was the founding of an institute for the education of a Protestant clergy. In 1536 Duke Ulrich created the *Evangelisches Stift*, which in 1547 moved from the *Bursa* to the former monastery of the Hermits of St. Augustine and in 1557 received its ultimate financial and administrative charter. The *Stift*, more than any other single part of the university, has over time established Tübingen's reputation. Its five-year curriculum (two years of philosophy, three years of theology) molded its students into a homogenous body that for several centuries shaped the intellectual and religious life of

Württemberg. It counted among its alumni not only famous theologians such as Jakob Andreae, Johann Albrecht Bengel, Ferdinand Christian Baur, Friedrich Theodor Vischer, and David Friedrich Strauss, but also eminent personalities working in other disciplines, such as astronomer Johannes Kepler, philosophers Georg Wilhelm Friedrich Hegel and Friedrich Wilhelm Joseph Schelling, novelist Wilhelm Hauff, and poets Johann Christian Friedrich Holderlin and Eduard Morike. After 1650 Philipp Jacob Spener's influence was instrumental in introducing the opinions and attitudes of German pietism into the *Stift*. Later on the thoughts of the Enlightenment and the French Revolution, the philosophy of Immanuel Kant, the ideas of the Left Hegelians and of nineteenth-century revivalism equally found a receptive climate there.

Until the Thirty Years' War, Tübingen had the reputation of being the most important university city in the Lutheran part of Germany. Andreae, chancellor of the university, played a significant part in the conception of



the Formula of Concord, which in 1577 ultimately summarized the teachings of the Lutheran position. Although, or perhaps because, it had the reputation for being a fortress of orthodoxy, the university attracted the sons of the nobility of northern Germany as well as those of various regions of Hapsburg Austria. In 1594 a *Ritterakademie* [knight's academy] (*collegium illustre*) opened its doors to them. It subscribed to a new educational philosophy, offering a curriculum comprising instruction in the sciences, knightly exercises such as fencing and horsemanship, foreign languages, and later in geography and martial knowledge. The *Akademie* quickly rose to prominence and counted as many as 121 students in 1601. Due to the war that began in 1618, it had to be closed in 1628, but it enjoyed a late flowering between 1653 and 1688.

The university suffered severe damage during the Thirty Years' War. In previous decades lectures had been held on occasion at locations in the vicinity because of sporadic surges of the pestilence. Now the plague played absolute havoc with the university's activities. In 1635 fully half of the teaching faculty died from the disease, among them Wilhelm Schickard, inventor of a mechanical calculator. Material loss resulting from military action was heavy as well. The libraries were stolen, and the school's economic base was largely destroyed. For decades thereafter the university was attended by no more than 250 to 350 students at a time, and even fewer in the early eighteenth century. As a rule its professors were recruited from only a few families during this period, which proved detrimental to the university's intellectual climate.

A short period of renewal occurred in the mid-eighteenth century, when Duke Karl Eugen temporarily took a personal interest in the university. Its statutes were modernized, an observatory was installed in the castle above the city, a scientific laboratory was established, and the anatomical facilities were enlarged. In 1767 the duke made himself *rector* of the university, and two years later he renamed it *Eberhardino-Carolina*, in honor of its founder and himself. Starting in 1775, however, he unfortunately turned his interests to a newly created academy in the duchy's capital of Stuttgart. This competitor, though, survived only until 1794. Its demise saved the University of Tübingen.

During the nineteenth century, more important developments took place. Württemberg emerged from the Napoleonic turbulence with considerable territorial gains and was granted the status of kingdom. With the manifestation of a new bureaucratic spirit the university's rights and privileges were somewhat curtailed.

All changes were not unwelcome, however, as a certain liberalization and diversification occurred. The first university clinic to be established in Germany was created in 1805 and put up its 15 beds in the *Bursa*. In 1817 a doctor of medicine was made chancellor, a break from the tradition which hitherto had ordained that the office was to be held by a theologian; in the same year a Faculty of Catholic Theology was added in order to cater to the

needs of the population of the newly acquired territories, largely Catholic; and a Faculty of Political Economy was founded to improve the training of future administrative personnel.

Over time, nevertheless, the reactionary climate of Metternich's age made itself very much felt at Tübingen. Liberal student fraternities were prohibited, and in 1825 a state commissioner was appointed whose mandate was the supervision of the university's activities. In 1828 the teaching faculty were declared to be civil servants and were henceforth paid directly by the state. New university statutes were adopted in 1831; they remained in effect until 1912.

Few professors thereafter dared to be politically active or to propagate unconventional ideas. Of those who did, a goodly number were forced to resign, among them such famous personalities as statesman Robert von Mohl, theologian David Friedrich Strauss, and poets Ludwig Uhland and Friedrich Theodor Vischer. The revolution of 1848 as a consequence found enthusiastic support among students and liberal members of the faculty. From 1849 on, though, repressive measures again stifled all reform aspirations.

Ideological containment, on the other hand, was not identical with academic stagnation. For the first time the confines of the medieval town were left when a new anatomical institute was built in 1832–35. A decade later, an entirely new university campus was started in the valley of the Ammer Creek with the construction of a lecture hall, botanical and chemical institutes, and a medical clinic. United in 1863 for the first time in Germany in a faculty of their own, the sciences experienced ever greater specialization. The arts and humanities, formerly considered the handmaid of theology, now grew to be independent. In 1876 the student enrollment reached 1,000 for the first time.

The student body underwent remarkable transformation. By the turn of the twentieth century, the number of theology students, who for centuries had been in the majority, comprised only a quarter of all students registered at Tübingen. In 1859 yet another change occurred. The first woman, a zoologist, who had been admitted by special permission, obtained a doctoral degree. From 1904 on, female students were admitted into the university on the same basis as males. Tübingen was the sixth university in Germany to admit women. Remarkable growth appeared in the medical facilities as well. While at the beginning of the nineteenth century the university clinic had had to fight to keep its few beds, in 1913 a substantial number of teaching hospitals gave treatment to 53,000 patients.

Such diversification and expansion required statutory changes. A new university constitution, adopted in 1912, extended representation in the decision-making bodies to various classes of teaching faculty who were not chair-holding professors.

Germany's defeat in World War I meant that, from 1918, the university was confronted with severe social problems. To meet them, it ventured into social activities on a vastly larger scale than it had ever done before. A student service corporation was founded in 1920 (*Tübinger Studentenhilfe*; from 1930 *Tübinger Studentenwerk*). This corporation administered the student restaurant (*Mensa*) and the dormitories, as well as the typewriting and book-binding facilities. The unstable political climate of the Weimar Republic was reflected in considerable political tension, which led to occasional flare-ups among the students. In 1925 at Lustnau, a suburb, there even occurred a bloody confrontation between left-wing and right-wing students. The teaching faculty, mainly conservative in outlook, succeeded in maintaining its homogeneity, however, and at the 450th anniversary of the university's founding (in 1927) the celebrations took place in a peaceful environment.

When the National Socialist regime established itself in Germany in 1933, the University of Tübingen did not offer any remarkable resistance. The academic decision-making bodies, in particular the two chambers of the senate, were abolished and replaced by an arrangement that reflected the so-called *Führerprinzip*, meaning that henceforth directives from above had to be followed. Some disciplines that were considered ideologically important, such as biology and history, received special support. On the other hand, in 1942, the university lost control not only of its material property, acquired from the time of its founding, but also of its legal independence.

Even the student complement shrank. The manpower demands of World War II resulted in the reduction of the number of students, which in 1940 reached the low of 889; for the first time the share of female students reached 50 percent. When in 1944 the Allies approached Strassburg, that university was evacuated, and a considerable number of its students and professors were transferred to Tübingen.

Fortunately the university did not suffer any physical damage during the war; it was one of the few German universities to escape destruction. It thus was able to resume its teaching activities as early as autumn 1945, only a few months after the armistice. Some dire consequences of the war resulted nevertheless. Twenty-nine of Tübingen's professors, a full third of the teaching body, were purged during the denazification phase of the Allied occupation for having had ties with the National Socialist regime. The efforts of the new German government of South Württemberg to replace the dismissed faculty members with new professors, and of the university to

reinstate its former employees, dominated the first years after the war.

During this time the university also endeavored to develop new forms of learning. The introduction of a *dies academicus*, a day of lectures of a general nature, and the founding of the *Leibnizkolleg*, which offered specific courses in the humanities, testified (and still testify) to its intentions. But the quick growth of the student body soon reduced such efforts to little more than tokenism. Until 1949 a rigorous admissions policy kept the number of students below 3,500. By 1954, though, it had risen to over 5,000 and by 1962 to over 10,000.

In 1958 a general development plan was adopted according to which the natural sciences were to be concentrated in an entirely new complex of buildings some two miles from the traditional site of the university. Moreover a new medical center was to be erected. Both plans have largely been realized. The natural sciences moved to their new quarters north of the city (Morgenstelle) in 1975; vast new clinical buildings were occupied in 1989. Unfortunately the construction of dormitories has not kept pace with the demand, putting great strain upon the residential capacity of Tübingen with its 50,000 inhabitants. In 1973 the number of students reached 15,000 and in 1982, 20,000.

In 1978 a new University Act, passed by the Baden-Württemberg legislature, inaugurated a profound reform of the university's administrative structure. It provided for a president, who replaced the *rector*, and three vice-presidents. A Full Senate (63 members) and a Small Senate (39 members) represent the various segments of the university.

In 1995 a total of 26,000 students were registered in 17 faculties. The university employed about 9,000 people, of whom some 700 were professors and another 1,300 were full-time teaching members of different and varying status. As German students do not pay tuition, the university's operational funds were provided by public funds, i.e., the federal government and the *Land* of Baden-Württemberg. In 1995 its budget amounted to roughly DM900 million (\$680 million), of which two-thirds went to the two faculties of medicine. Its libraries comprised about 6 million volumes. Today, as it has been over various periods of its existence, the University of Tübingen is considered one of the most important and most renowned institutions of higher learning in Germany.

—Udo Sautter



# ÉCOLE NATIONALE D'ADMINISTRATION (Paris, France)

<b>Location:</b>	Central Paris.
<b>Description:</b>	A state-run institution of higher learning, responsible for the education of France's senior civil servants and politicians. Students are admitted only after a series of rigorous competitive examinations called <i>les concours</i> .
<b>Information:</b>	École Nationale d'Administration 13 rue de l'Université 75007 Paris France (49) 26 45 45 Fax (42) 60 26 95

École Nationale d'Administration (ENA) was created in 1945 by the government of Charles de Gaulle. It is responsible for the recruiting and training of the administrative class of civil servants in France. It was created as part of a series of reforms introduced by Michel Debré, the Minister of National Education aimed at modernizing the French civil service.

Since the French revolution, successive governments have always expressed an interest in the recruitment and training of civil servants. Law schools had traditionally been responsible for training France's administrative elite but with the establishment of the École Polytechnique and École Normale by the Revolutionary Convention (1793–95), new training schools known as *grandes écoles* provided specialized training for key sectors of the civil service. Napoléon established the modern French educational system. It was characterized by a strong centralized structure and rigid selection procedures based on entrance examinations known as *les concours*. As the last of the *grandes écoles* to be founded, the ENA is seen by some in France as the fulfillment of the Napoléonic dream for the creation of ■ uniform cadre of “grands commis.”

The École Polytechnique was created to train the country's state engineers and the École Normale to train teachers. Both schools featured rigorous entrance examinations, strong school spirit, and a close association between the schools and their respective ministries since particular ministries of the French government had a larger say in determining the curriculum of these state schools than did the Ministry of Public Education. These schools would serve as the model for many institutions of higher learning in the nineteenth century and finally, the ENA.

The idea of establishing a *grande école* for France's civil servants had been seriously advocated as early as 1836 and was vigorously debated throughout the remaining century. Under Hippolyte Carnot, Minister of Public Instruction, the École Nationale d'Administration was established in 1848 as a preparatory school for all branches of the administration. It was modelled after the École Polytechnique, Carnot's former school but it survived only for 18 months, ■ victim of the political instabilities of the Second Republic, the opposition of the law faculties who feared losing their prestige and students to such a school, and the intransigence of the civil servants who likewise feared that their future promotions could be threatened by better-trained candidates.

Following the failure of the first ENA in 1849, all further attempts to create a *grande école* were suspended until France's defeat to Prussia in 1870. Once again, internal instability and political turmoil led to urgent calls for better training of France's administrative elite so as to prevent a similar humiliation from occurring. More importantly, the radical tendencies which the Paris Commune had brought to the forefront, led a group of private citizens to found their own institution, the *École Libre des Sciences Politiques* in 1871–72, which became known as the “Sciences Po.”

Although it has often been seen as a *grande école*, the Sciences Po was a private-run institution, who feared the more radical elements in French political society and who wished to provide France with a corps of politicians and administrators who were sufficiently trained to deal with the demands of an industrializing society. Fearful of the state monopoly over the educational system, they believed that by training the country's administrative elite, they would not only break this monopoly, but would have greater influence over the running of the state. Soon after its founding, the Sciences Po became so entwined with the system of recruitment of *grand corps*, that the two became almost undistinguishable.

At the same time, similar changes were taking place in the French civil service. Fearful that a radical shift in the government could irrevocably alter the country's direction, each ministry and *corps* developed a greater autonomy. They also grew in importance in the early years of the Third Republic. Their members often served as the final authorities in administrative law, as the controllers of state finances, and as advisers on foreign policy. The *grands corps* slowly created a network of regulations, customs, and decrees which so intimidated politicians that they eventually established their own independent recruitment examinations (*concours*). Graduates from the





*École Nationale d'Administration*

École Libre des Sciences Politiques were the only ones who knew how to work amidst such a network, and became so indispensable as a link between the politicians and the bureaucracy that the school had a virtual “intellectual monopoly” over the senior civil service.

Each ministry and each corps not only administered its own examinations, it set the standards in the selection of candidates. Such a degree of training was required even

to pass the *concours* that few candidates could ever hope to be sufficiently prepared to pass. Moreover, so much specialization was required to pass one particular exam that they were little prepared to serve in any other administrative sector. As a result of this utter dependency, many civil servants had a greater loyalty to their respective *corps* than to the state. These closely knit groups soon monopolized the French administration. The *concours*

were often guilty of emphasizing obsolete or irrelevant knowledge and testing in such a way as to bias results in favor of the sons of the *grands corps* members. They became virtually impenetrable—open almost exclusively to sons of the well-to-do.

Such a system survived for well over half a century. It was not challenged until the 1930s when the Great Depression plunged France into a series of crises. Reformists within the civil service itself called for a complete overhaul of the system. They charged that the system of recruitment and promotion was inefficient, undemocratic, and biased. They demanded an alternative to the privately run Science Po in favor of a system similar to that of the École Polytechnique and military schools, which had only one uniform entrance exam regardless of where the candidate would eventually be posted.

In 1936, a bill calling for the re-establishment of a state-run École Nationale d'Administration was introduced by the Popular Front government. It called for the fusion of all *concours* into one examination which would determine the postings for each candidate as was the tradition in most of the *grandes écoles*. Once again, the corps, law faculties, and the civil servants opposed such provisions and were able to put sufficient pressure that the bill was significantly modified. By the time the Chamber of Deputies had adopted it, the bill called for little more than a nationalized version of the Sciences Po and left the separate *concours* of the *grands corps* and ministries untouched. Before the bill could take any effect, France was overtaken by the events of World War II.

As had been the case in 1849, the attempts at reform in 1936 demonstrated that such a reform entailed the reorganization of the entire civil service. No other civil service was so entrenched, so fragmented, and better able to oppose changes than the French. As it happened, the opportunity for such a massive restructuring occurred in the aftermath of the German invasion and Vichy regime. Many of the state institutions and entrenched interests of the *grands corps* had been discredited as a result of the Vichy regime. The postwar era was a propitious time for undertaking such reforms for as General De Gaulle later admitted, the creation of the École National d'Administration in 1945 "saw the light of day . . . in an atmosphere of scepticism on the part of the major bodies of public service and the parliamentary milieu."

One of De Gaulle's most important advisors and one of ENA's principle architects was Michel Debré. He appreciated the reality that such reforms implied more than the creation of a *grande école* for the corps. An entire reorganization of recruitment, training, and promotion system was required. Traditional structures had to be maintained so as not to engender the similar opposition which had defeated ENA's predecessors.

In 1945, he introduced major changes in the recruiting and curricula to modernize as well as democratize the civil service. The ENA was to follow the traditional struc-

ture of a *grande école* but with new features which were to destroy the previous geographic and social monopolies which had characterized previous generations of French civil servants.

The ENA was created by means of an ordinance on October 9, 1945. De Gaulle and Debré consciously avoided a vote in the assembly fearing that its members would not feel entirely at ease with the creation of such an institution. It was an important tactical measure and showed the importance of the school and the civil service reforms to the stability of the Fourth Republic. Its proponents sought to widen the training of future servants and open access to the corps to all who could demonstrate themselves capable, regardless of rank, background, or association.

Rather than close the École Libres des Sciences Politiques, Debré nationalized it under the new name l'Institut d'Etudes Politiques. Eleven similar institutes were to be opened in the French provinces. Tuition was free and the curriculum was to provide a broader training to enable students to pursue careers outside state service if they so chose. Moreover, it was no longer necessary for students from outside Paris to move to the capital in order to acquire the necessary education to gain admission to the ENA. All institutes were to offer equivalent preparation to all those wishing to write the entrance exams. The ENA became the sole means of recruiting for all levels and departments of the French civil service, including the prestigious *grands corps*. They maintained their position in the organizational structure of the administration, but they could no longer operate their own entrance examinations though they were guaranteed the right to select the top graduates of ENA.

The *concours* remained the central admission prerequisite with a few innovations. There were to be two categories of examinations, one for the young men and women who had received their education at Institut d'Etudes Politiques or the provincial institutions affiliated with provincial universities. It was hoped that these provisions would recruit students from every region and class of the French nation and end for all the traditional prerequisite of an elite Parisian education.

A second category was created with a special *concours* for more mature candidates who had at least five years of experience in the civil service but who did not have the academic qualifications. This was intended to prevent the "intellectual nepotism" of political science students and to facilitate a meritocracy so that lack of formal training in political science could no longer impede promotion, and could also draw more competent civil servants who had been previously barred by their lack of formal education. All of these measures were in response to former criticisms of the entrenched elitism of the *grandes écoles*, which critics had pointed out tended to place greater emphasis on formal education and disregard practical experience and ability.



Though there were two entrance examinations, all candidates for the civil service corps were to take the same competitive final examination after their 18 months of study. This one *concours de sortie* replaced the multiple competitions which each administrative body had used to fill postings. This new system, inspired by the polytechnical system, enabled successful candidates to choose between posts in the *grands corps de l'État* or the provincial departments of the prefectorial corps, according to how they were ranked following the final examinations. It was hoped that this system would minimize the co-optation which had prevailed in the *grand corps* while providing a more democratic, centralized, and less subjective means of determining the hierarchy of postings.

Intended to make the selection more democratic and efficient, Debré also argued that it was the best means by which to ensure a uniformly trained cadre of loyal servants to the state. One of ENA's chief missions was to teach future administrators the state's responsibilities to the people while fostering a renewed sense of service. At the time, Debré's reforms were praised as ingenious, a balanced compromise between tradition and change.

A growing chorus of protest erupted in the late 1960s about the ENA. Ironically, many of the attacks were made by former graduates. In April 1970, a group of students wrote a letter to *Le Monde* in which they denounced the ENA for its tendency to protect senior administrative postings for a co-opted minority, what they labelled an "esprit de caste." The following year, the students of the "Charles de Gaulle" class wrote to the Prime Minister Chaban-Delmas (himself a graduate of the ENA) to demand changes to the way postings were assigned. As a means of expressing their dissatisfaction, they refused to accept entry into the highly coveted *grands corps*.

The students were protesting the inequality in career opportunities. Those who graduated at the top of their class were assured a position in the *grand corps* and other important ministries of finance, interior, and foreign affairs while those with lower rankings were assigned to social affairs, education, and agriculture. They also objected to the "bonuses" paid to officials of the *grands corps*, which made for an inequality in salaries. They called for the creation of a single uniform corps, an end to the control over certain posts by the *grands corps*, and for equity in salaries. Six out of the 68 students in the "Charles de Gaulle" class could have chosen careers in the *grands corps* and though some did break with the class solidarity, the protest highlighted many of the problems and criticisms which not only the ENA but the entire French system of higher education faced.

The ENA's course program covers two years. Students are expected to serve under a senior administrator for a period of practical training in an administrative post. This was to cover a range of subjects which any similar civil servant would encounter throughout a normal career and

enable the student to prepare a short thesis on a subject of local interest. The second year is a period of study divided in four major sections: general administration; finance and economics; social administration; and foreign affairs. After introductory courses, each section offers specialized courses and seminars that are taught by university teachers, high-ranking civil servants, and persons with special experience.

All critics generally agree that the problems lie more with the broader structure of the French educational system than with the ENA in particular. The Block-Lainé Commission of 1969 which had studied the question had also advocated the creation of a unified corps of administrators which would base promotion on work performance rather than academic performance.

Part of the problems lie with the 1945 reforms. By accepting the traditional belief that those who serve the state must be selected according to the most demanding academic criteria, ENA's architects had accepted the educational model of the *grande école*. By incorporating the hallmarks of this system—the *concours*, the *corps*, and postings based on rank—they indirectly legitimized the formation of elites and denied the promise of any promotion from the ranks since performance at ENA determined a student's entire career. The ENA has also only achieved mixed results in so far as the broadening of the social and geographic background of its candidates. The nationalized Sciences Po, the Institut d'Études Politiques de Paris, still had a preponderant role in providing students for the ENA.

In spite of such criticism, few dispute the role the ENA has played in the development of the Fifth Republic. Many of its graduates have been appointed to various ministries and advisory posts. Many others have gone on to have brilliant political careers, including three former prime ministers—Fabius, Chaban-Delmas, and Rocard—and Presidents Giscard d'Estaing and Jacques Chirac.

**Further Reading:** The following sources all provide information: W.D. Halls, *Education, Culture and Politics in Modern France* (Oxford and New York: Pergamon Press, 1976); F.P. Ridley and Jean Blondel, *Public Administration in France* (London: Routledge, 1964; New York: Barnes and Noble, 1965); Thomas R. Osborne, *A "Grand École" for the "Grand Corps": The Recruitment and Training of the French Administrative Elite in the Nineteenth Century* (New York: Columbia University Press, 1983); Ezra N. Suleiman, *Politics, Power and Bureaucracy in France: The Administrative Elite* (Princeton, New Jersey: Princeton University Press, 1974); Michalina Vaughan, "The Grandes Écoles" in *Governing Elites: Studies in Training and Selection*, edited by Rupert Wilkinson (New York: Oxford University Press, 1969).

—Manon Lamontagne



# ÉCOLE NORMALE SUPÉRIEURE (Paris, France)

**Location:** École Normale Supérieure de Ulm/Sèvres is located in central Paris, in the heart of the Latin Quarter, only a few blocks from the Sorbonne. École Normale Supérieure de Cachan is located on the southern outskirts of Paris, in Cachan, a ten-minute train ride from central Paris. École Normale Supérieure de Fontenay/Saint-Cloud is located a few miles southwest of Paris, in Fontenay-aux-Roses, a 15-minute train ride from central Paris. École Normale Supérieure de Lyon is located in central Lyons.

**Description:** Four advanced teacher training institutions administered by the Ministry of Education, enrolling approximately 3,000 students (800 students at the E.N.S. Ulm/Sèvres, 450 at the E.N.S. Fontenay/Saint-Cloud, 1,150 at the E.N.S. Cachan, and 674 at the E.N.S. Lyon) and offering graduate and postgraduate studies in the humanities and sciences. The Écoles are among France's *grandes écoles*, a set of specialized higher education schools accessible by competitive examination and which, in parallel with the university system, are designed to select and train elites for the higher ranks of public service.

**Information:**

E.N.S. Ulm/Sèvres  
45 rue d'Ulm  
75230 Paris Cedex 05  
France  
(1) 44 32 30 00

E.N.S. Fontenay/Saint-Cloud  
31 Avenue Lombart  
92266 Fontenay-aux-Roses Cedex  
France  
(1) 41 13 24 00

E.N.S. Cachan  
61 Avenue du President Wilson  
94235 Cachan Cedex  
France  
(1) 47 40 20 00

E.N.S. Lyon  
46 Allee d'Italie  
69364 Lyon Cedex 07  
France  
(7) 72 72 80 00

Now comprising four distinct schools with separate entrance examinations and specified fields of study (sciences at Cachan and Lyon, humanities at Ulm and Fontenay), the École Normale Supérieure (ENS) arose as a unique institution from the French Revolutionary government, the National Convention, in 1795. Its creation is inscribed in the First Republic's attempts to set up a national public education, theoretically in the spirit of the Enlightenment and the Revolution, but mostly, at a more practical level, to fulfill the immediate needs of the young republic and its citizens. In the early days of the republic, one of those urgent needs consisted of providing the new public educational system with its teachers' teachers, in other words, with a higher corps of republican instructors capable of recruiting and training in turn the future teachers of the primary schools. Robert J. Smith described the goals of the institution: "Ultimately the *normalien* was to become the intellectual model for the transformation of illiterate and parochial provincials into well-informed citizens loyal to a democratic and republican nation." This first version of the École Normale of Paris—which did not earn the qualification of "Supérieure" until 1843—however failed to live up to its noble intentions. Lacking funds, credibility, and hope for a long future given the context of financial crisis and political chaos, it was closed in May 1795, only four months after its inauguration.

If the school's abortive beginnings can in large part be attributed to the economic and political uncertainties of the regime, they must also be tethered to the contradiction that lies at the heart of this product of republican enthusiasm and idealism, a contradiction which resonates to this day in the French educational system and which is a key to understanding its strengths and weaknesses. The École Normale Supérieure indeed epitomizes the unresolved tensions between a democratic approach to education and a fundamentally elitist structure which, in its attempt to abolish prior privileges, paradoxically fosters new hierarchies and new forms of exclusion. While its underlying principle is to make instruction "for French citizens uniformly accessible throughout the whole Republic," as Joseph Lakanal, the representative of the Committee of Public Instruction at the national convention and the father of the École Normale stated in his address to the convention in October 1794, the École Normale Supérieure, like the rest of France's *grandes écoles*, also reflects a two-track configuration geared to distinguishing power elites from the greater number and to producing an intellectual aristocracy.

This apparent incongruity, however, elucidates the reemergence of the École Normale under the Empire.



*École Normale Supérieure*

While the original version of the school participated in what Smith called “a national educational crusade at the primary level,” the École Normale that reopened in 1810 as a part of Napoléon’s educational reforms was now designed to train the professors of the secondary and university levels. As such, it targeted a much more limited part of the population and was openly dedicated to the education of the country’s bourgeois youth and to the production of a loyal and competent ruling class.

Smith writes that

Napoléon’s École Normale resembled a secular version of the Jesuit colleges of the Old Regime. The students’ uniforms, their compulsory attendance at chapel, and the rigid daily schedule of a boarding school (an *internat*) reflected the military and authoritarian values of the regime. The Emperor intended that the *normalien* should be schooled rather than educated.

In spite of constraining links with Napoléon’s autocratic regime, the *école* managed to preserve and develop

the democratic and liberal tradition that had existed at its creation. An emphasis on intellectual freedom, independent reflection, and critical discussion led the École Normale to become what Smith describes as “a haven for intellectuals eager to exchange ideas as well as to earn academic degrees.”

Such a progressive faction was regarded as increasingly suspicious by a more reactionary regime. The conservative wave that followed the Bourbon restoration of 1814, however, spared the École Normale and even improved its status with several favorable measures that increased the school’s autonomy in relation to the university. But as the regime grew more reactionary in the 1820s, the École Normale became too much of a threat in the eyes of ultra-Catholic hegemony. As Smith wrote, “The *normaliens* seemed too proud of their learning, too little inclined to be submissive to traditional authorities, and too much attached to the philosophical ideas of the Enlightenment.” The school was consequently closed in 1822 and remained so for the next eight years.

In 1830, one of the first decrees of the July Monarchy was to restore the École Normale, which had by then



become a symbol of intellectual and spiritual liberty; its reopening in August 1830 was part of the new regime's rebuttal of years of ultra-Catholic coercion. From this point on the star of the École Normale was on the rise. It received the eminent title of "École Normale Supérieure" in 1843—a title which made official the school's strict dedication to the training of university and royal colleges' professors. It was relocated to the heart of the Latin Quarter, significantly close to its academic counterpart and rival, the Sorbonne, in 1847. The presence of distinguished personalities such as Victor Hugo and Adolphe Thiers at the ceremonial inauguration of the École Normale Supérieure's new quarters at the 45 *rue d'Ulm* connoted the growing prestige of the institution.

The dominant political position of the *normaliens* during the Revolution of 1848 reflected the school's well-established and privileged status in French society. Largely siding with the jeopardized bourgeois Republic and against the working-class insurgents, the *normaliens* confirmed their faith in liberalism, civil liberties, and moderate democracy and asserted their opposition to "socialism, authoritarianism, or plutocracy."

In the conservative context of the Second Empire, the École Normale's liberalism and intellectual independence naturally reappeared as a threat to be contained, and the school once again suffered from what Smith described as "the regime's insistence upon political and religious orthodoxy." "This was a period when serious study and independent work were discouraged . . . Instead of savants, who might become troublesome, the government preferred to turn out 'modest professors.'" As it had in the past, the school, however, succeeded in keeping its progressive tradition alive and in maintaining its identity and integrity against official pressures and constraints.

In the later years of the Second Empire and by the beginning of the Third Republic, the regime's wariness towards higher education and advanced studies abated and was gradually replaced by a genuine concern with the advancement of national education. Such a shift revived the importance of the École Normale Supérieure and placed the school's graduates at the pinnacle of a fast-growing educational system whose need for qualified teachers was urgent.

When, by the 1880s, education became the pivotal term of the Third Republic's promotion of new ideas and new standards of living, the *normaliens* came to occupy not only the higher ranks of the educational apparatus, but also the higher ranks of the political and administrative spheres. Smith explained that the École Normale Supérieure became an important source for national leaders, scholars, and schoolmasters, though that situation did not last much past World War II.

After World War II, the political role of the *normaliens* declined because of the competition of the sci-

entific *grandes écoles* and mostly of the ENA (L'École Nationale d'Administration), founded in 1945 with the specific function of providing training for the higher ranks of civil service. The intellectual leadership of the school remained nonetheless prominent. Such crucial figures as Henri Bergson and Jean-Paul Sartre graduated from the École Normale Supérieure, and their enduring influence upon French culture and western philosophy underscores the importance of the institution in the production of an intellectual elite. The growing isolation and marginalization of the great intellectuals under the Fifth Republic, however, explains the *école's* loss of the strategic political role it enjoyed during its golden age. Today's *normaliens* choose, for the most part, a career in academia, where they still constitute the elite of the profession.

Since its revised statute of 1810, the *école's* curriculum has evolved from a two-year course of study to a four-year training program which, to this day, only consists in providing additional preparation for the basic degrees granted by the university—the license at the end of the first year, the *maîtrise* at the end of the second, and, most importantly, the *agrégation* at the end of the third year, the highest national competitive examination for the professorate. Once *agrégés*, fourth-year students usually embark upon doctoral research.

The fact that the École Normale confers nothing but the title of *normalien* to its graduates—a title nonetheless stamped with an aura of great cultural and social prestige—points to one of the enduring originalities of the school. To this day, and though they are undoubtedly privileged by the quality of the additional training they receive at the school (the most eminent professors teach at the ENS) and by the financial support they are granted throughout their entire course of study, the students of Écoles Normales Supérieures have always competed with the non-*normaliens* in the academic system. The four branches of the ENS indeed do not deliver a diploma; they merely provide additional training and funding to a selected group of students who, in return, sign a ten-year contract with the Ministry of Education, a contract which comprises four years of paid and top-quality training and six years of public service. The *agrégation* remains the ultimate goal of the *normalien's* four-year course of study as a trainee-professor. The *normalien agrégé* is then almost guaranteed swift advancement at the university level.

An interesting issue is the status of women in an institution that remained reserved for male candidates until the creation, by Jules Ferry in 1880, of the École Normale Supérieure d'Institutrices de Fontenay-aux-Roses. This institution was specifically designed to form a higher corps of female professors whose function would be to train the future female teachers of the primary schools. It thus not only wished to compensate for the lack of attention granted to women in the academic



world but also for the neglect of the primary level of education. The equivalent institution for boys, the École de Saint-Cloud, was created in 1882.

In 1881, the École Normale Supérieure de Sèvres was founded to provide a female equivalent to the École Normale Supérieure of the *rue d'Ulm*. Interestingly however, nothing officially prevented women from taking the entrance examination to the exclusive *rue d'Ulm*. A few bold women challenged the rule and the *rue d'Ulm* was forced to open its doors to female candidates. Today, Sèvres and Ulm, just as Fontenay and Saint-Cloud, have fused, constituting France's two highest academic institutions in the humanities, while Cachan and Lyons provide superior training in science. The differences between Ulm/Sèvres and Fontenay/Saint-Cloud have decreased over the years, though Ulm/Sèvres has kept the prestige

granted by a longer history and a more strategic role in French politics and intellectual development.

**Further Reading:** Robert J. Smith's *The École Normale Supérieure and the Third Republic* (Albany, New York: State University of New York Press, 1982) provides a detailed and clear account of the school's history, with an emphasis on its golden age and its role in French politics during the Third Republic. W.D. Halls' *Education, Culture and Politics in Modern France* (Oxford and New York: Pergamon Press, 1976) has a chapter on France's "Grandes Écoles" with a rather informative section on the École Normale Supérieure.

—Dorothee M. Bonnigal

# ÉCOLE POLYTECHNIQUE (Paris, France)

<b>Location:</b>	Located on rue Pailaiseau, in the suburbs, 20 miles south of Paris. Throughout much of its history it had been located in central Paris on Montagne Ste. Geneviève.
<b>Description:</b>	A professional training school for many of France's engineers and civil servants. It is a <i>grande école</i> , one of the specialized French institutions of higher learning.
<b>Information:</b>	École Polytechnique 91128 Palaiseau CEDEX France (69) 33 47 37

The École Polytechnique, a state-run professional training institution for many of France's engineers, civil servants, and senior managers, was created during the French Revolution on March 11, 1794. Originally called the École Centrale des Travaux Publics, it was renamed École Polytechnique in 1795. Students refer to it colloquially as "Le X" and to themselves as *polytechniciens*. Since its founding, it has become one of the most prestigious institutions in France and is part of an alternative higher educational system to the universities which the French call *les grandes écoles*.

The school's revolutionary founders believed education would play an important role in the survival of the republic. They mistrusted the church-run universities, which they regarded as woefully inadequate in their teaching of mathematics and science. In 1793, they were abolished and reduced to mere faculties. In their place, the revolutionary convention established centralized state schools such as the École Polytechnique and the École Normale (to train the country's teachers). They would become the models for *les grandes écoles*. The École Polytechnique was established in order to meet the need for better trained scientists and engineers. Over 400 candidates were chosen from nationwide examinations. After a three-month introductory course (*cours révolutionnaires*) one third entered the state service immediately; another third were given a one-year course; and the final third were given the full two-year program.

Under Napoléon the modern system of French higher education was firmly established. Universities remained small and limited in their curricula. State schools gained increasing importance in the training and education of

French citizens. École Polytechnique was granted military status and subject to the directives of the Ministry of the Army, rather than the Ministry of Public Education. The school was moved to Montagne Ste. Geneviève, where it remained until 1976. Its internal operation was modeled on military discipline, after citizens complained about the students' rowdy behaviour. Students entering the École Polytechnique were selected according to the most exacting intellectual criteria and were guaranteed employment either in the military, the state engineering corps, or the civil service. The school also produced some of France's most eminent scientists of the early nineteenth century: mathematicians Denis Poisson and Louis Poinot, physicists Jean-Baptiste Biot and Etienne Louis Malus. Thus was fostered an impression of service to the state by the most capable and best qualified candidates. Napoléon then gave the school a new motto: "*Pour la patrie, les sciences et la gloire*" (For country, science, and glory).

The École Polytechnique continued to reflect these republican values during the restoration of the monarchy in France (1830–48), when many students openly opposed the monarchy. The school was closed four times during this period and was stripped of its military status. Students took to the streets in 1830 to protest the imposition of school prayers and mass. The École Polytechnique was reinstituted as a military school following the disturbances, although student rioting led to more closures in 1832, 1834, and 1844. Continuing their opposition to the monarchy, the *polytechniciens* did not look favorably upon Napoléon III and the Second Empire (1852–70).

In the nineteenth century, École Polytechnique was one of only a handful of schools in France that provided a rigorous curriculum of mathematics and science and counted some of the country's best scientists as its instructors. While the school was open to all, the combination of tuition and rigorous entrance examinations (called *concours*) prevented many poorer students from applying. Only affluent families could send their children to the best schools which would prepare their sons for the *concours*.

Candidates prepared for the entrance examinations for at least two years after receiving their *baccalauréat*, taking special classes created for that purpose. Only a small percentage of applicants were admitted to the school (300 of 1,800 in the modern era). The examinations have been standardized over the decades, but almost half are still devoted to mathematics. Over the years, the *concours* came to represent more than just

admission to a school. Acceptance implied admission to France's elite, if not in the civil service then in private enterprise. It was by far the most "bourgeois" institution in France. In the 1850s, over 70 percent of its students came from the upper middle classes, while 19 percent were children of liberal professionals. Only 1 percent came from the working class.

Although intended to supply the country with technical experts, the school's curriculum provided a broad training in science and mathematics, along with other non-scientific subjects. Students were taught a foreign language (English, German, or Russian), as well as introductory courses in economics, social sciences, history, literature, architecture, and artistic design to help them understand the modern world.

This academic curriculum was also complemented by rigorous athletic and military training, activities which played an important role in developing a legendary *esprit de corps*. Students were given officer cadet status and spent their two years of study in what some have termed "a living unit." They studied, slept, and lived together in groups of eight. Rituals, traditions, and a common language unique to *polytechniciens* fostered mutual respect and cooperation. This legendary spirit was (and still is) unusual in France where boarding schools were the exception rather than the rule.

A student's career options were also determined by his final standing (*classement de sortie*). The top students were offered places in one of the highly prized technical corps of the armed forces. The rest were offered places in the army or other sectors of the civil service. Those entering the technical corps of the civil service were subject to another two years of specialized training. École Polytechnique provided only a general scientific education and did not include a period of practical training. The two most highly coveted corps were the corps of mining engineers and the corps of civil engineers. Recruitment into these corps was usually reserved for the top students.

École Polytechnique has always been a model for the French system of higher education. Other *grandes écoles* with similar structures and characteristics were instituted by the state in order to provide specialized training in given fields. All featured the *concours* as a criteria for entrance. All sought to develop bonds of fellowship which would be maintained long after the training period was over. Furthermore all encouraged a broad introduction in a variety of artistic, scientific, and technical subjects.

The virtual monopoly of *polytechniciens* over state positions ensured that the school would always enjoy the patronage of the upper middle classes, but, in the mid-nineteenth century, the school faced competition from other technical schools which were being created to meet an increasing demand for industrial engineers. École Centrale des Arts et Manufactures, founded in 1829, was the first such school to train engineers for private indus-

tries. Given École Polytechnique's strong association with service to the state, employment in industry was deemed socially degrading. This had created a problem in many industries where scientifically trained graduates were increasingly in demand. École Centrale, attempting to attract students, modeled itself on the École Polytechnique, making it attractive to many lower middle class families who also sought to increase their social prestige. Since its students were shut out from state service they were destined to become industrial engineers.

The industrialization of France after 1870, coupled with the emergence of new industries and fields of scientific research particularly in physics and chemistry, led to new calls for the creation of more technical training faculties to meet private industrial demand. Moreover, such calls were usually accompanied by severe criticisms of École Polytechnique's curriculum. Many felt that this had become as entrenched and aristocratic as the *ancien régime* universities that it had replaced.

Between 1882 and 1909, a host of new engineering schools and faculties were opened throughout France. These included the Parisian École Supérieure de Physique et de Chimie (1882) and the École Supérieure d'Électricité (1894). Also established were new engineering faculties at the provincial universities at Grenoble, Lille, Lyon, Nancy, and Toulouse. These institutions trained as many as 120 engineers annually up to 1914 and over 200 after 1919.

Emphasis in their curricula was placed on pragmatic applications of scientific knowledge directly to industrial problems. After a solid introduction to physics and chemistry in the first 18 months, students specialized in either chemistry or physics, with extensive exercises in the laboratory as well as an introduction to research techniques. The program also included a three-to-six-month period of apprenticeship, called a *stage*, giving the student practical knowledge of industrial operations. This curriculum was unprecedented in the French system of higher education, in its response to the immediate needs of French industry, which had previously relied almost exclusively on the expertise of one of the state engineering corps.

Between 1890 and 1914 industrial engineers gained increasing social importance. New organizations and the "professionalization" of industrial engineering provided a new challenge to not only the prestige of the École Polytechnique but also to its monopoly over the state corps of engineering. The school responded by criticizing the pedagogical foundation of the new technical schools (referred to collectively as the *grandes écoles des sciences appliquées*). They argued that the curricula of the *grandes écoles* were too narrowly based and short-sighted because they did not encourage deductive thinking necessary for problem solving. Advocates of the École Polytechnique felt the *grandes écoles* did not provide the cultural and educational instruction needed for leadership.



Industrial engineers responded with their own criticism of the École Polytechnique. They argued that lack of inductive learning was archaic and left the *école's* graduates ill-prepared for the scientific and technological activities involved in industry. Moreover, *polytechniciens'* traditional disdain for industry inhibited France's economic development. They called for an end to the École Polytechnique's monopoly over the training of engineers for state corps, arguing that this change would lead to the replacement of *polytechniciens* with scientifically trained engineers.

This debate reflected several changes that were affecting the École Polytechnique. Between 1890 and 1914, the strong association between the army and the school, which had been strengthened after France's defeat in the war of 1870, waned. Several internal problems in the military led to new reforms, such as the military law of 1905, which required prospective candidates to spend one year in the ranks before entering the school. This regulation not only deterred many from pursuing military careers, including posts in the once much-coveted corps of engineers, but it led many to resign from their positions. Decline in advancement opportunities brought on by reforms, the relatively small material advantages, and particularly the decline in social prestige, made a career in the corps much less attractive than it had been throughout the nineteenth century.

At a time when industrial engineering gained in social prominence and considerable monetary rewards, many *polytechniciens* overcame their disdain for private industry only to find that industrialists were reluctant to employ them since they lacked the necessary scientific and technical skills. Ironically, this situation was to change dramatically during the interwar period. École Polytechnique's prestige was restored as a result of World War I.

Many of the French commanders had been graduates of the École Polytechnique, including Marshals Fayolle, Foch, Joffre, Manoury, and General Nivelle. A grateful nation restored a new measure of respectability to the *polytechniciens*, a respectability of which industrialists were quick to take advantage. They soon discovered that students of École Polytechnique were ideally qualified to suit the needs of industry, because their common bonds to fellow graduates in the civil service proved to be far more valuable than their training. Indeed, there developed a practice of what the *polytechniciens* called *pantouflage*, a practice of resigning from a civil service post to take up lucrative employment in industry or trade.

The state corps of engineers also gained prestige in the interwar period. The military demand for engineers and the effort that was required to rebuild the country after four years of destruction reaffirmed the importance of the state corps of engineers, but despite this resurgence, military service was becoming a less attractive career option for *polytechniciens*. By 1924 only one-quarter of gradu-

ates went into the army, as more lucrative careers were to be found in other sectors of the French bureaucracy as well as in business.

Several reforms have been instituted since the end of World War II to alleviate some of the problems in the system—the most notable problem was the development of entrenched elites while the school attempted to preserve and maintain the notion of meritocracy. Increasing social demands for democratization and administrative modernization have brought many changes to the École Polytechnique, including a move to the suburbs of Paris. A second separate entrance examination, introduced in 1969, allowed a small number of candidates from technical schools to gain access. Women have been admitted to the school since 1972 though their numbers are small.

Yet, despite these changes and the modernizing reforms of the French system of higher education in 1968 and 1984, the École Polytechnique has remained true to its traditions. The *concours* has remained as the only acceptable means by which to evaluate prospective candidates. Attempts have nevertheless been made to broaden the access of the school to middle-income and working classes. In 1850, an unlimited number of scholarships were made available to students, subject to a means test, who passed the entrance examinations. This enabled one-third of students to get scholarships. That number grew to one-half in 1881 as more and more French secondary schools provided their students with a better grounding in mathematics. By 1926 nearly two-thirds of the student body were given in scholarships and finally in 1930, the school was made entirely free.

The *école* is still semi-military in character and continues to be a major training center for the upper echelons of the armed forces and senior engineering personnel employed by the state. Students must still sign a ten-year engagement to serve the state in a civil or military capacity (though about half opt for the practice of *pantouflage*). The main outlets for graduates still remains the state engineering corps as the Génie Militaire (Army Engineering), Génie Maritime (Naval Engineering), Ponts et Chaussées (Bridges and Roads), Artillery, and Mines, which were established throughout the eighteenth and nineteenth centuries. Though today many graduates do not choose to enter the military, the notion of service to the state predominates, and many find themselves employed in other technical sectors of the civil service known as the *grands corps technique de l'État*, such as the École Nationale Supérieure des Télécommunications. This includes state monopolies and nationalized industries, economic and technical services, and research in state-owned laboratories of la Centre nationale de recherches scientifiques (the National Centre for Scientific Research). Since 1945, many graduates have abandoned the practice of *pantouflage* and have gone directly into private industry.

École Polytechnique has produced three presidents of the Republic—Sadi Carnot, Albert Lebrun, and Giscard

d'Estaing. Among other notable *ex-polytechniciens* are Captain Alfred Dreyfus, the Nobel laureate and physicist Henri Becquerel, Georges Sorel, and the economist Jacques Rueff. More importantly, graduates are to be found in the upper echelons of France's ministries, public and private industries, in every walk of life including the church.

**Further Reading:** Although there is no history of the *École Polytechnique* in English, various aspects of the institution in the context of French education are covered in W.D. Halls' *Education, Culture, and Politics in Modern France* (Oxford and New York: Pergamon Press, 1976), Fritz Ringer's *Edu-*

*cation and Society in Modern Europe* (Bloomington: Indiana University Press, 1979), Terry Shinn's "From 'Corps' to 'Profession': The Emergence and Definition of Industrial Engineering in Modern France" in *The Organization of Science and Technology in France, 1808–1914*, edited by Robert Fox and George Weisz (Cambridge and New York: Cambridge University Press, 1980), and Michalina Vaughan's "The Grandes Écoles" in *Governing Elites: Studies in Training and Selection*, edited by Rupert Wilkinson (New York: Oxford University Press, 1969).

—Manon Lamontagne

# EMORY UNIVERSITY

## (Atlanta, Georgia, U.S.A.)

<b>Location:</b>	Suburban Atlanta, about five miles northeast of downtown.
<b>Description:</b>	A private, coeducational institution affiliated with the United Methodist Church and enrolling 10,983 undergraduate and graduate students.
<b>Information:</b>	Emory University South Oxford Road N.E. Atlanta, GA 30322 U.S.A. (404) 727-6123

Emory University in Atlanta, Georgia, is one of America's wealthiest and most respected institutions of higher learning. It has an impressive endowment of about \$750 million and physical assets of nearly twice that amount. The university's graduates have achieved distinction as statesmen, doctors, religious leaders, business executives, university presidents, and as members of many other professions. Two of the university's most distinguished graduates, Dumas Malone and Tom Rivers, both attended Emory in 1906. Malone went on to become the Pulitzer Prize-winning biographer of Thomas Jefferson and an editor of the important reference work, *Dictionary of American Biography*. Rivers went from Emory to Johns Hopkins Medical School and became one of America's pioneering virologists. Some 42 years later, in 1948, an Emory alumnus, Alben Barkley, was elected vice-president of the United States.

Emory has not confined itself to influence in the academic world. An institution affiliated with the university, the Carter Center (named for former U.S. president Jimmy Carter) has some 13 programs devoted to promoting world peace and human rights throughout the world. Emory and its benefactor Robert Woodruff donated to the federal government the land on which the Centers for Disease Control, the nation's foremost agency for tracking and preventing diseases, is built.

Emory's development into a major university did not come easily. The university had to overcome numerous obstacles, including war, inadequate financial support, and even outright hostility. Throughout its history, which has spanned more than 160 years, Emory University's development has reflected the major trends in higher education in the American South.

The university was founded as Emory College on

December 10, 1836, but its beginnings are rooted in a meeting of the Georgia Methodist Conference, held in Washington, Georgia, in 1834. Dr. Stephen Olin, ■ representative from Randolph-Macon College in Virginia asked conferees for money to support his college. The conference was ready to support Olin's request when a preacher named Allen Turner stood up and said that Georgians didn't need to send money out of the state, but, rather, should use it instead to establish their own college. The conference decided to vote Randolph-Macon their support, but within a year it began acting upon Turner's exhortation, establishing a manual labor school at Covington, Georgia, with Alexander Means as superintendent and 30 students in attendance. In November 1836, the school's trustees, led by Ignatius Alphonso Few, petitioned the Georgia legislature to expand their original charter to include "college privileges." Two years later, Emory College began admitting its first class of students, all males. Located in Oxford, Georgia, 40 miles east of Atlanta, the college was named for Bishop John Emory of Maryland, who had presided at the 1834 Washington conference and who, in the following year, was killed in a carriage accident.

Few was elected to serve as both president of the board of trustees and first president of Emory College. Fifteen students arrived in Oxford for the college's first year. Their costs included \$5.00 for lodging, \$3.00 for fuel (firewood), \$40.00 for tuition, and about \$85.00 for meals for the entire year—lower fees than at any comparable institution in the state. These costs reflect Emory's humble beginnings, which were marked by a constant struggle for survival. During Few's presidency (1840–48), for example, faculty salaries had to be cut and the trustees had to stop giving perpetual scholarships. When George F. Pierce assumed the presidency in 1848, he found the college heavily in debt, with inadequate buildings and equipment and professors who received only about 77 percent of their salaries. Pierce, however, managed to raise money for a new building to house a library, classes, science demonstrations, and an auditorium. On February 25, 1852, the cornerstone was laid for the \$15,000 structure.

By 1860 it seemed that Emory's fortunes would change for the better. Enrollment rose and the college was beginning to pay its own way. Then the Civil War erupted, forcing the college to cease operation. Its students were sent off to war and its buildings were used as a Confederate hospital and later as Union headquarters. The war destroyed the college and wiped out its endowment. To give a boost to Emory when it reopened in January 1866, the Georgia state legislature provided funds "to finance the





*Emory University*

educations of indigent and maimed soldiers"; those funds helped pay the tuition of Emory's 120 students. The following year, Luther M. Smith, an Emory-educated lawyer and professor of Greek, became the college's sixth president. Under his direction, Emory began implementing a more "practical" education, adding to its four-year curriculum a three-year program that did not require Latin or Greek. Under Smith's leadership, the college revived, but

the president disagreed with trustees over policy and resigned in 1871. Under his successor Osborn I. Smith, the college's seventh president, Emory faced more difficult times. In 1873 the country's economic crisis caused a drop in Emory's enrollment, and a policy of generous but foolish tuition exemptions led to a serious reduction in the college's income; however, Emory did manage to find money for four buildings, including the prayer chapel.

The administration of Smith's successor, Atticus Greene Haywood, marked a turning point in Emory's history. In the words of historian Thomas English, the author of *Emory University, 1915-1965: A Semicentennial History*, Haywood "accomplished much by internal organization, and by an active campaign of publicity, he brought Emory's needs to the attention of the public. Most significantly, Haywood attracted the eye of George Seney, a New York City Methodist banker-philanthropist, who had read a pamphlet containing the president's 1880 Thanksgiving Day address, in which he talked of a restored South, the end of slavery, the hope for improved race relations, and a revived economy. Seney gave Emory \$75,000 to establish an endowment, \$5,000 towards repayment of its debts, and \$50,000 for the construction of a new building.

Seney's generous gift helped, but Emory remained a poor college. By the turn of the century it was still in debt and its physical plant remained inadequate. A change of direction came in 1899, when Asa G. Candler, the brother of Warren Akin Candler, who had served as Emory's tenth president from 1888 to 1898, was elected to the college's board of trustees. Four years earlier, Asa had sent the very first keg of Coca Cola syrup to his son, who was a student at Emory University. Instead of attending college, Asa Candler had become a pharmacist. In 1888 he acquired the rights to Coca Cola, and two years later he began marketing the soft drink, a shrewd move that made him a millionaire. In 1914 the Methodist Episcopal Church, South, wanted to establish a university east of the Mississippi. Atlanta offered the church \$500,000 and the use of Wesley Memorial Hospital and Wesley Memorial Church. Asa Candler wanted to have the new Methodist Church located in Atlanta with a transplanted Emory University as its academic center. Candler's wishes became the catalyst of what is considered the single most momentous event in Emory College's history. In a letter to the educational commission of the General Conference of the Methodist Episcopal Church, South, which was planning for the new university, Candler offered "the sum of a million dollars for the endowment of such an institution, the plans and methods of which are to be definitely directed to the advancement of sound learning and pure religion." Candler also gave the university the tract of land upon which to build the new university: seven acres northeast of Atlanta.

The commission voted to accept Candler's offer and it made him the chancellor of the yet-unnamed university. A committee was established to negotiate with the trustees of Emory College to make Emory the "academic department" of the new university. The Emory College trustees officially approved the amalgamation plan and suggested that Emory University be selected as its name "so as to preserve and conserve the assets of history and traditions of Emory College and enlarge its usefulness to the M.E. [Methodist] Church, South, and at the same time

promote the success of the new University." The university's charter was granted on January 25, 1915, and bylaws were adopted by the interim board of trustees on January 12, 1916.

The educational commission had set aside \$500,000 of Candler's gift for the establishment of a School of Theology, and on September 23, 1914, that became the first organized division of the new university. The following February, the school was named in honor of benefactor Asa Candler, who also became the university's first president. In 1916 the Candler School of Theology moved into the first two academic buildings completed on the new campus. The same year, the university established the Lamar School of Law (named after alumnus L.Q.C. Lamar, who went on to serve in the U.S. House of Representatives, in the U.S. Senate, and as an associate justice of the U.S. Supreme Court).

During World War I, Emory College remained in Oxford, but with the war's end, the move to Atlanta began. The last faculty meeting of Emory College in Oxford took place on June 4, 1919, after which the faculty began preparing for the summer quarter which was to begin in late July, at the new Atlanta campus. The first four buildings—a classroom, a dormitory, and two temporary frame structures to be used as an assembly and dining hall—had been completed in 1917. By June 1919, 14 houses "suitable for use by members of the faculty as their homes" were ready for occupancy.

In the summer of 1919, Emory admitted the first women to candidacy for baccalaureate degrees in education and for graduate degrees. Two years earlier, Eleonore Raoul became the first woman admitted to the university when she enrolled in the School of Law. Chancellor Candler was adamantly opposed to coeducation and the admittance of Raoul, and she is said to have enrolled when he was out of town.

Candler resigned in 1920 and was succeeded by Harvey Warren Cox, a professor of philosophy and dean of the Teacher's College of the University of Florida. "With the coming of President Cox," wrote historian Henry Bullock, the author of *A History of Emory University*, "the University emerged from a period of changing leadership unparalleled in the institution's history and entered one marked by unified leadership and well-planned progress."

One of the major changes occurred in the university's curriculum. It became increasingly specialized, moving away from the strictly liberal arts education Emory offered in the past. As James Harvey Young, Charles Howard Candler Professor of American Social History, Emeritus, at Emory University, explained, "The history of the curriculum of Emory College in Atlanta reveals an ongoing contest between the demands of specialization, in an even larger number of disciplinary options, with the demands of general education." In 1919 the university established the School of Business Administration and

the graduate school. Two years later, the university moved to improve the course of study in the College of Arts and Sciences, putting into effect a new curriculum that increased the number of free electives. Emory made important curricular changes in 1925, creating a Junior Division for the first two years, during which students acquired ■ general background, and a Senior Division for the last two years, during which students specialized.

After the move to Atlanta, the university began to address the problem of the inadequate library building. For the first seven years after the move, the library had been located in the basement of the theology building, much to the inconvenience of its faculty and students. In 1924 Candler donated money towards the construction of a new library building, and two years later, the Asa Candler Library was dedicated. The administrative offices, however, took over the ground and first floors, severely restricting the space for books and library services. The situation did not change until the construction of the new administrative building in 1955. To meet the need for constructing the new administrative buildings, Emory launched a campaign in 1925 with the slogan: "Ten million dollars in ten years." Three million of that amount was to be used for constructing buildings and the rest was to be added to the endowment, which stood at a comparatively meager \$2 million. The campaign got off to an impressive start with \$750,000 raised in less than three years after its launch. Several buildings were constructed between 1927 and 1936, the university's centennial year, including a temporary dining hall and chemistry building, both in 1927, and in 1937, Glenn Memorial, which was to serve as both a church and an auditorium. The university did raise money and some new buildings were constructed, but the Depression of 1929 dashed all hope of meeting the goal. The Depression, in fact, crippled the university. Its income declined steeply; salaries were slashed; enrollment plummeted; and the operating budget was cut drastically. Not until 1935 did the situation begin to improve. Historian English wrote, "Prudent management of its resources had enabled Emory to weather the storm, and the institution was to emerge from the ordeal, from a sense of hardship honorably shared and overcome, with a greater unified strength than it had possessed before."

When World War II broke out in 1939, Emory once again moved to action. In 1941 it revived the medical unit that served in World War I and organized a commit-

tee of national defense. The following year, it began to offer a number of "war emergency courses," including military law and chemical warfare. In 1943 the U.S. Army sent medical trainees to Emory and the Navy instituted a college training program at Emory known as V-12. In recognition of the university's contribution to the war effort, a 10,700-ton cargo ship was christened the M.S. Emory Victory.

Major change came to Emory after the war. In 1946 Emory began offering doctoral courses in a wide range of subjects. The student body became more cosmopolitan, as the university began to recruit students from all over the country. The university opened its enrollment to women on an equal basis with men. In 1962 Emory moved to end racial restrictions.

After World War II, Emory's history was marked by two major episodes. The first was the 1946 donation by Emory University and Robert W. Woodruff of land on which the Centers for Disease Control was built. (The center actually opened in 1960.) Then in 1979 Woodruff, who had attended Emory College in Oxford and later headed the Coca Cola company in the 1920s, gave Emory University \$105 million, the largest gift ever given to an American educational institution. Ironically, as a freshman in 1908, Woodruff, who left Emory before the first term ended, wrote to his father, complaining that his eyes "fairly ached" from studying. The university used the donation to establish Woodruff scholars and Woodruff professors, adding greatly to Emory's prestige. Moreover, the Woodruff gift has allowed Emory to move from the status of ■ regional university to one that has attained national and international stature.

**Further Reading:** Beth Dawkins Bassett's essay, "Once Upon a Time in Newton County" (*Emory Magazine*, March 1987, pp. 21–51), provides ■ succinct and interesting introduction to Emory's history. Henry Bullock Morton's *A History of Emory University* (Nashville, Tennessee: Parthenon Press, 1936) provides an exhaustive, detailed account of the university's history. Thomas H. English's *Emory University, 1915–1965: A Semicentennial History* (Atlanta, Georgia: Emory University, 1966) provides a detailed treatment of a specific period in Emory's history.

—Ron Chepesiuk and Mary Elizabeth Devine



# FEDERAL INSTITUTE OF TECHNOLOGY (Zurich, Switzerland)

<b>Location:</b>	In the canton of Zurich in northern Switzerland, on the bank of the Limmat river on the northern tip of Lake Zurich.
<b>Description:</b>	One of only two institutions of higher education directly funded by the federal government.
<b>Information:</b>	Eidgenössische Technische Hochschule Ramistrasse 101 Zentrum, 8092 Zurich Switzerland (1) 632 11 11

The *Eidgenössische Technische Hochschule* (ETH) is one of two universities of technology in the Swiss Federation. It was the first federal institution of higher learning to be created in 1854 under provisions of the 1848 Constitution. Its smaller sister institution is the *École Polytechnique Fédérale à Lausanne* (EPFL); the two remain the only institutions of higher learning that are funded by the federal government. All other universities are funded by their respective cantons, the member states which make up the Swiss Federation. Since its founding, the institute has been called upon to represent the ideals of a federal university in which cultural, linguistic, and religious diversities are reconciled and represented. It has played an important role in the training of engineers and scientists for not only the Swiss Federation but also for many industrial nations. Many of its graduates, such as Max Born and Albert Einstein, have had world-renowned scientific careers.

Switzerland is a confederation of 26 member states (cantons) of diverse languages, cultures, and religions. There are three official languages: German, spoken in 65 percent of the cantons; French, spoken in 18 percent; and Italian, spoken in 12 percent. The member states are almost equally divided between Catholics and Protestants. Given such diversity, education has always been the responsibility of the cantons.

The humanism of the fifteenth and sixteenth centuries inspired the founding of Switzerland's first university at Basel in 1460 in the German-speaking part of the federation. From 1550 to 1620, the university had its golden age. The Reformation had a profound impact on the university and on many other cantons. Calvin established his *Schola genevensis* as a theological school. Throughout the seventeenth and eighteen centuries,

most cantonal colleges and academies that had been created were for theological training. Their training tended to be classical and Latin-based.

With the invasion of French soldiers and the declaration of a Swiss Republic in 1848, many critics of the cantonal educational system called for the creation of a federal non-denominational institution. Chief among them was Phillippe-Albert Stapfer who was inspired by both the French centralized schools and the German universities. His dream of a federal university was a victim of the political struggles between federalists and centralists that dominated the Swiss Federation until the new constitution was adopted in 1848.

Switzerland, like the rest of Europe, was embroiled in an ideological debate about the role education was to play in its modernization. With the country's rapid industrialization in the 1830s, the need for technical schools was becoming apparent, especially in the northern German-speaking parts of the federation. The canton of Zurich had established its own *Kuntschule* to provide better training in mathematics and science to its artisans and entrepreneurs. Similar schools were also established in Bern in 1779, and in Lucerne in 1829. This rapid industrialization led to more liberalization and centralization. Several commissions studied the idea of intercantonal railways, and the harmonization of taxes, tariffs, currencies, and armies. Among the ideas was Stapfer's federal university which would serve all Swiss cantons.

In the meantime, several cantons undertook their own educational reforms. In the industrial north, new universities were created. In 1818, the University of Basel was reorganized along the lines proposed by the German philosopher Wilhelm von Humboldt. He advocated freedom of instruction, autonomous administration, and the free play of the scientific mind. Zurich also used the Humboldtian model when it created its university in 1833. Basel and Zurich were followed by Bern the following year when it enlarged its school of theology to create a university. Geneva also expanded its Calvinist seminary, which officially became a university in 1873.

Proponents of the federal university faced great hostility from these institutions and cantons. The religious and cultural differences in Switzerland made the idea of a single national university difficult to establish. Cantons considered the training of pastors, judges, and teachers to be too important to relinquish to a central authority. As for greater scientific and technical training, the Humboldtian model left little room for practical training. The proposal for a technical institute was soon added to the list of items to be studied by the constitutional commission.

Despite the hostility of some cantonal representatives, the Swiss Federal Constitution of 1848 did recognize the role of education in developing ■ national civic pride, in preserving liberty, and in maintaining order. Clause 27 of the constitution reserved the right of the confederation to establish and fund institutions of higher learning. A federal university and technical institute were officially recognized. It would take another seven years before Zurich's institute was created. In the intervening years, the proponents of a federal university would be defeated in the national council of 1851, but in a spirit of compromise, the proposal for a polytechnical institution was adopted.

With the hopes of a national university dashed, all efforts were turned to shaping the technical institute. Two of the most important driving forces were General Guillaume H. Dufour (who was to preside over the founding of the Red Cross in 1864), and Alfred Escher, a railway magnate from Zurich. Dufour was a great admirer of the French *École Polytechnique*. His original plans for the Federal Institute of Technology had been modeled on the French engineering school. Dufour called for a highly centralized administration. Obligatory courses in mechanical and civil engineering, chemistry, and applied sciences were to be spread over three years. The first year was to be devoted to theory, the second to practical application, and the third to specialized branches of engineering. The institute was to grant its own diploma and be administered by a committee which reported directly to the federal council.

Dufour's original plans were modified by the president of the federal council, Alfred Escher. Escher had been one of the chief proponents of a federal university based on the German model and was less disposed to following the Parisian model of the *École Polytechnique*. He proposed more autonomy for the university professors and administrators, though a federal committee would still oversee the institute. Escher was also successful in winning the institute for his canton of Zurich, which had lost its status as the nation's capital to Bern. In July 1854, the Swiss federal council sanctioned the creation of the Eidgenössische Technische Hochschule (Federal Institute of Technology). Its creation is ranked as one of Escher's greatest political achievements.

The Swiss Federal Institute of Technology opened in October 1855. It consisted of five teaching divisions called *Abteilung*: architecture, engineering, mechanics, chemistry, and forestry—each of which awarded its own diploma. A general branch, featuring chairs in natural sciences, literature, and political sciences, was also included in order to provide a broader education.

Within a decade after opening its doors, the Federal Institute was widely recognized in Europe and the United States as a center for the study of engineering and the sciences. It was to serve as a model for the Massachusetts Institute of Technology and other polytechnical schools

around the world. Its reputation was largely built on the calibre and reputation of its teaching staff. The internal disruptions that followed the revolutions of 1848 enabled the Swiss institute to attract many renowned professors, such as the botanist Oswald Heer, the literary historian Theodor Vischer, the Italian libertarian Francesco de Sanctis, the renowned art historian Jacob Burckhardt, and the architect Gottfried Semper.

Burckhardt joined the faculty in 1855. He previously had taught in his native Basel at the university. He remained in Zurich for only three years before returning to Basel. His study of the Italian Renaissance published in 1860 remains as of one the most influential works on Renaissance art and history. Semper was an eminently successful practitioner of the Neo-Renaissance style in Germany. Born in Hamburg, he had studied in Paris and Munich. After designing the Dresden Opera House, he was forced to flee Germany following the revolutions of 1848. On the recommendation of Richard Wagner, Semper was appointed professor of architecture in 1855. While in Zurich, he designed the main hall of the Federal Institute and the Winterthur city hall. He left Zurich in 1871 for Vienna, where he designed the theater buildings for the *Ringstrasse*.

The Federal Institute expanded quickly in the first decades. A mathematics section was added to the natural sciences division in 1866 and an agriculture division in 1871. A few years later, a superbly equipped laboratory was established by the physicist Heinrich Weber, with the help of the engineering tycoon Werner von Siemens. From 231 students in 1855, the institute grew to 741 in 1880, and over 2,000 in 1905.

The city of Zurich also underwent a considerable transformation. It grew from a small Swiss town into a cosmopolitan city. In 1856, oil lamps were replaced by public gas lights, which were replaced by electric lamps in 1880. In 1893, Zurich incorporated numerous wards in the surrounding vicinity and expanded quickly to 120,000 inhabitants. By the turn of the century, Zurich was not only Switzerland's most important commercial city, but was also one of Europe's most dynamic cultural centers. Many intellectuals from all academic and political spheres flocked to Zurich. Among them were Leon Trotsky, Rosa Luxembourg, and later, James Joyce.

It was not surprising then, that the institute should attract a young student who would give the school an international reputation for excellence. Albert Einstein enrolled in the mathematical and natural science school for teachers in 1896. He had taken the entrance examination ■ year earlier when he was just 16. The exam covered a wide range of subjects. Einstein failed to reach a high enough standard in languages, history, literature, and art, though he had done very well in mathematics and sciences. After a year at a school in Aarau, some 20 miles west of Zurich, he received his diploma, which allowed him to enter the Federal Institute. Einstein was joined in



1896 by three fellow students with whom he developed lifelong friendships: Marcel Grossman, a dedicated student and son of an industrialist; Michelangelo Besso who was to join Einstein at the Bern Patent Office; and Mileva Maric, whom Einstein married in 1902. In an era where few women were enrolled in sciences, Maric was indeed unusual, but women had been admitted to the University of Zurich since the middle of the nineteenth century and the Swiss were open to the education of women.

Einstein was, from all accounts, a typical student at Zurich. He was very particular about what lectures he attended, much to the consternation of some of his professors. Fascinated by direct experimentation, he worked most of his time in the physical laboratory until an accident in his third year diminished his enthusiasm for direct experience. By his own accounts, Einstein benefitted from excellent teachers particularly in the area of mathematics.

The Federal Institute had always attracted strong mathematicians such as Elwin Bruno Christoffel, who taught from 1862 to 1869. His work on differential geometry contributed greatly to the mathematical construction of the general theory of relativity. Herman Minkowski, who taught from 1896 to 1902, was the most influential teacher for the young Einstein. Minkowski had won the great Paris Prize for mathematics in 1882 when he was just 18. Einstein was to pay special tribute to him, acknowledging that his lectures provided the mathematical form for the theory of relativity.

As for his physics professors, Einstein had less admiration. The chair of the department was Heinrich Weber who taught at the institute from 1875 until his death in 1912. He was one of the pioneers of the science of electrical engineering, but he was somewhat old-fashioned in his approach to physics. A frosty relationship developed between Weber and Einstein. In his memoirs, Einstein described Weber's lectures as "outstanding and a magnificent introduction to theoretical physics," but he characterized his professor as old-fashioned. Feeling that such lectures taught little that was current in theoretical physics, Einstein elected not to attend them and instead read the works of Helmholtz, Maxwell, Boltzmann, and Hertz.

Einstein was able to enjoy a relative freedom of choice until a few months before taking his final examinations for which, he recalled, "one had to stuff oneself with all the rubbish whether one wanted to or not." Admittedly, he had more freedom at the institute than in his native Germany, but he was also saved by the careful, copious notes of Marcel Grossman. Einstein passed his final examinations and was graduated in 1900. Out of total of six points, Einstein obtained a final average of 5.5 in theoretical physics; 5 in practical physics; 5 in the theory of functions; 5 in astronomy; and 4.5 for his diploma paper.

His friend Grossman was appointed a professor at the institute while Einstein was himself overlooked for any appointments. Once again, his good friend Grossman

came to his aid and found Einstein a post at the Bern patent office. He returned to the institute 12 years later. In the intervening period, he married Maric, acquired Swiss citizenship, and, most important, developed his general theory of relativity.

Einstein was finally appointed to the chair of theoretical physics at the institute in 1912. Still relatively unknown outside the world of physics, Einstein was already garnering attention throughout Europe as a theoretical physicist. Madame Curie and Jules Poincaré, both eminent scientists, had high praise for Einstein, calling him one of the leading theoreticians of the future. They were quick to point out that despite the frosty relationship between Einstein and Weber, the institute would "reap great honour" in appointing the mathematical physicist. Einstein's teaching days were short-lived, for, as Curie and Poincaré had forewarned, Einstein's research work was becoming valued throughout the world. After one year of teaching, he left Zurich for a professorship at the University of Berlin, membership in the highly prestigious Prussian Academy of Sciences, and the directorship of a new physics institute.

The institute of technology also played a large role in helping Switzerland enter the world economy. Aided by a protectionist policy throughout most of the twentieth century, new enterprises in light mechanics, chemistry, and food production developed alongside the traditional textile and agricultural industries.

In the 1930s, a new chair and laboratory devoted to improving textile equipment and techniques were set up at the institute. Research there eventually led to the introduction of new automatic weaving techniques with synthetic fibers which have revolutionized the Swiss textile industry.

Similar research in the fields of organic and inorganic chemistry has had a comparable impact on the growth and development of the federation's pharmaceutical industry. In a country where arable land has always been in demand, the opening of an agricultural division in 1869 has vastly improved Switzerland's agro-economy. Research undertaken by Ernest Laur in collaboration with local agricultural association led to more efficient production techniques, which in large part helped Switzerland overcome food shortages during two world wars. The agricultural school's research had also helped develop the silviculture industry in Switzerland.

From eight divisions in 1854, the institute has grown to more than 20 divisions, most of which grant diplomas (equivalent to the American Master of Science degree) and Doctor of Science degrees. It presently has over 11,000 students working toward degrees in architecture, engineering, mathematics, and science with more than half in the engineering division.

Students who enter the institute tend to be older than their North American counterparts and are graduated after completing four and a half years of study (nine



semesters), which includes diploma work and a practicum outside the institute. The institute is affiliated with many of Switzerland's top research institutes and continues to be internationally recognized as a center of scientific research and learning.

**Further Reading:** Although there is no history of the Federal Institute of Technology, references to it will be found in Frederick S. Allen's *Zurich, the 1820s to the 1870s: A Study in Modernization* (Lanham, Maryland: University Press of

America, 1986) and Paul S. Bodemhan's *The Education System of Switzerland* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1982). For information about the institute's most illustrious graduate, read Carl Seeling's *Albert Einstein: A Documentary Biography*, translated by Mervyn Savill (London: Staples Press, 1956) and Michael White and John Gribbin's *Einstein: A Life in Science* (London and New York: Simon and Schuster, 1993).

—Manon Lamontagne

# FEDERAL UNIVERSITY OF RIO DE JANEIRO

## (Rio De Janeiro, Brazil)

<b>Location:</b>	In Rio, the state capital of Rio de Janeiro, on a three-mile-long island in Guanabara Bay just east of Rio's Northern Zone and four miles north of Centro, the city's business, government, and cultural center.
<b>Description:</b>	The Federal University of Rio de Janeiro is Brazil's largest federal university and one of the nation's oldest public universities. It enrolls over 30,000 undergraduate and graduate students, who pay no tuition.
<b>Information:</b>	Federal University of Rio de Janeiro Avenida Brigadeiro Trompowski s/n 21941 Rio de Janeiro, RJ Brazil (21) 290 2112
<b>Visiting:</b>	Contact the university at the above location.

Throughout the nineteenth century, Brazilian higher education was limited to the privileged classes who studied in private institutions. These schools emphasized professional training, generally in the fields of law and medicine. But Brazilian intellectuals sought the creation of a true, multidimensional university based on a Western European model. Their hopes were enlivened in the last part of the nineteenth century with the establishment of the Brazilian Federative Republic and the drafting of a constitution in 1891 that mandated federal support of secondary and higher education. But Brazil's government failed to fulfill this role. After the turn of the century, pressure increased for a public university. States, municipalities, and professional organizations responded to the demand by establishing nearly 30 pub-

lic and private colleges in the two decades surrounding 1900. Because most of these institutions were professional schools, pressure continued to mount for a true university.

Not until after 1910 did the federal government become increasingly involved in regulating higher education, and only in 1920 did the government make its first significant attempt to fulfill the promise of its 1891 constitution. That year, the government organized the University of Rio de Janeiro (the predecessor of the Federal University of Rio de Janeiro). The school was formed by uniting three of Brazil's traditional independent professional schools under one administration, combining the Polytechnic Institute of Rio de Janeiro (Brazil's oldest school in the field of engineering), with schools of law and medicine. United under a weak administration, these three disciplines remained semiautonomous. Also, professional training—the three schools' purpose prior to their unification—remained the express central purpose of the University of Rio de Janeiro; the pursuit of research and general knowledge were de-emphasized.

Although the Federal University of Rio de Janeiro has always considered its ancestor Brazil's oldest university, many Brazilian and American scholars maintain that the University of Rio de Janeiro was simply an administrative reorganization. Prominent Brazilian educator Fernando de Azevedo lamented that the establishment of the University of Rio de Janeiro "did not amount to any change in the structure and methods of higher education [in Brazil] . . . and was no more than a grouping of three institutions for training of professional men." Others similarly contended that the establishment of a true university in Brazil occurred only in the 1930s, after the government expanded its role and more actively directed the development of higher education. But despite this, the University of Rio de Janeiro's founding was symbolically significant as it represented the federal government's first solid attempt to address the educational mandates of its constitution. Further, through the creation of this university, the government constructed a model which it hoped would guide development of future Brazilian universities, both public and private. In fact, the prevailing characteristics of the University of Rio de Janeiro were reflected in the organization of Brazil's universities for the next 50 years. More immediately, the university served as an organizational model for the University of Minas Gerais. This school, founded in 1927, also combined existing schools of law, medicine, and engineering under a new central administration.

Just as the initial impetus for the establishment of the University of Rio de Janeiro came from the federal gov-



*Federal University of Rio de Janeiro*

ernment, significant academic and organizational changes at the university awaited the government's initiative, and a new government.

The 1930 revolution initiated a period of modernization and centralization in Brazil. Known as *Estado Novo*, the "New State" viewed education reform as central to its modernization program. The national government assumed an active role in all levels of public education, making efforts to standardize instruction and guide students from secondary school into the nascent public universities. The new, more activist government laid the legislative groundwork for Brazil's modern university system. In 1931 legislation detailed the organization and purpose of public universities by setting mandatory curriculum for all fields, directing the organization of academic departments, reemphasizing professional training and mandating a further unification of existing professional schools into the university system. In essence, the new regime's legislation created a model for all Brazil's public universities.

This legislation guided the University of Rio de Janeiro's development in the 1930s. In 1937, the departments of the Federal Technical University were added to the

University of Rio de Janeiro, which then changed its name to the University of Brazil. Two years later, the departments of the University of the Federal District (in Rio) were transferred to the University of Brazil, and a department of philosophy, sciences and letters was formed to train secondary school teachers and to offer courses in science and the liberal arts. To fill this department, the government recruited many foreign professors for the university, which enabled the University of Brazil to emphasize scientific research in various fields. The government intended the University of Brazil, with its new organization and purpose, to be its model for all the nation's institutions of higher education.

In an effort to increase the number of trained technical personnel, the Brazilian government continued to develop a network of federal universities in the 1940s. In the next decade federal universities grew to enroll over one-third of Brazil's higher education students. Throughout the 1950s, federal expenditures on higher education increased, universities expanded their fields of study, and the government gradually eliminated all student fees and tuition at public universities.



In 1964 a military takeover of the government further expanded the federal role in education as the new regime tried to direct education for its modernization campaign. The new government aggressively expanded higher education, viewing it as the key to advancing Brazil; accordingly, universities received a greater proportion of the education budget. Economic growth, an expanding middle class, the demands of a technological society, and government efforts to increase access to higher education brought rapid growth to the nation's universities in the 1960s and 1970s. To handle this increase, the government federalized many state, municipal, and private institutions of higher learning in a campaign to make the public university central to Brazil's modernization. The federal universities remained the linchpin of this government scenario.

The government's activism brought significant change to the University of Brazil in the 1960s. In 1965, the university was reorganized as the Federal University of Rio de Janeiro. In 1968 the government launched an intensive university reform effort. These reforms again reorganized the Federal University of Rio de Janeiro using a North American model. Specialized academic departments and institutes were created; these held responsibility for all levels of education in their respective disciplines, from introductory courses to graduate level work, including research and professional certification if relevant. Also, additional independent professional schools were merged into the Federal University of Rio de Janeiro. The university also adopted the U.S.-style semester and credit systems and initiated a "basic cycle" of two years of broad-based coursework to precede specialized education in all fields.

Consolidating teaching and research tasks into discipline-specific departments facilitated research and expanded graduate education. More significantly, in the Federal University of Rio de Janeiro, the government attempted to establish its model research university. The university's role as a research institution was simultaneously encouraged by various federal agencies, which began funneling increasing resources to the university for science and technology research. These funds enlarged the number of science researchers, expanded the university's laboratories and libraries, increased the number of faculty and the proportion holding advanced degrees. By the late 1960s, over 60 percent of Brazil's higher education students were enrolled in public universities, and the Federal University of Rio de Janeiro—Brazil's largest

federal university—enrolled over 20,000 students. These statistics reveal the government's success at increasing access to free higher education, but developments in the next two decades jeopardized these achievements.

During the 1970s, public universities were overwhelmed by a doubling of enrollment. By the early 1980s economic stagnation and demographic factors had curtailed the increases in enrollment, but the government's inability to meet the explosive demand for higher education in the 1970s meant that Brazil's public universities now only enrolled approximately 30 percent of the nation's students, a figure that remains constant into the 1990s.

In the 1980s the Federal University of Rio de Janeiro faced financial problems, which led to hiring freezes, reductions of operating expenses and cutbacks in capital improvement plans. This led the university to initiate lucrative agreements with corporations, government agencies, foreign foundations, and foreign governments. These alliances, following 60 years of government encouragement, are the most recent step in the school's development into a true multidimensional research university.

In its early years the Federal University of Rio de Janeiro represented a mere reorganization of nineteenth-century Brazilian models of higher education. But since its inception, the school has evolved into a diverse, modern university. More than any other Brazilian school, the Federal University of Rio de Janeiro's history has illustrated the centrality of the Brazilian government's role in developing the nation's modern university system.

**Further Reading:** English language sources on the Federal University of Rio de Janeiro are scarce and many of the most thorough are also the most dated. Fernando de Azevedo's *Brazilian Culture* (New York: Macmillan, 1950) briefly portrays the school's founding from the perspective of an insider. Daniel C. Levy's *Higher Education and the State in Latin America* (Chicago: University of Chicago Press, 1986) describes the role of Brazil's government in the development of its modern university system.

—Michael Mundt

# FREE UNIVERSITY OF BERLIN

## (Berlin, Germany)

<b>Location:</b>	In Dahlem, western Berlin, Germany.
<b>Description:</b>	A state university enrolling about 55,000 students in undergraduate and graduate schools.
<b>Information:</b>	Free University of Berlin International Office Brümmerstrasse 52 14195 Berlin Germany (30) 73900 Fax (30) 838 73901

The Free University of Berlin has been, since its founding in 1948, attached to Germany's break from the rule of National Socialism and World War II. A free university was not intended to mean an "open university" but one that participated in the new liberal western democratic society. "Truth, Justice, Freedom" has been the motto for nearly 50 years in the biggest university in the German capital.

Following a memorandum by Wilhelm von Humboldt, King Frederick Wilhelm III founded a university at Berlin's Unter den Linden in 1810 that strove for independence from the state while being supported by it. This model of independent research and education of youth has been the dominant university design from the nineteenth century until today.

Within its first 100 years, Berlin's Frederick Wilhelm University developed into one of the biggest and most important institutions of higher education in the German-speaking world. In the late years of the Empire before World War I, the university had a fruitful relationship with a number of other institutions like the Emperor Wilhelm Society, the Technical College of Charlottenburg, and the Prussian Academy of Sciences. There were plans to remove the university from the narrow space of the city center and relocate it in Dahlem, near the Emperor Wilhelm Institutes. But the idea to found a "German Oxford" was destroyed by World War I. The consequences of the war, the unfulfilled revolution, and economic inflation deeply affected the ability to conduct scientific research at the university. Nonetheless, world-class research was carried out for awhile following the war as the high number of Nobel prize winners from Berlin and Dahlem indicates.

After 1933, the National Socialists controlled policy at the universities and used their administrative and physical power to oust their opponents, especially Jewish profes-

sors and students. This forces exodus cut back dramatically on the scientific potential of the university.

Berlin suffered heavily from the effects of World War II. Large parts of the inner city were completely destroyed. The reopening of Berlin's university in 1946 was a monumental achievement. The university was located in the Soviet sector, but students from all sectors of Berlin and its surroundings began their studies there. In the following years, however, the confrontation between East and West increased in Berlin, and the university became deeply influenced by the Soviet Union and the East German authorities. Students were admitted largely on their social background, and preference was given to students from the working class and farming community. Student admission also depended on involvement in certain political activities and membership in mass organizations. Nonconformist political activities were repressed and those students were relegated, imprisoned, or abducted.

Students formed a growing opposition against this policy. In the summer of 1948 hundreds of students went to the western sector and demanded in a demonstration near the Potsdamer Platz the establishment of a free university in West Berlin. The idea to found a free university during the heightened political strain of the Berlin Blockade was a most remarkable one. Among others, Ernst Reuter, West Berlin's mayor, strongly supported the idea of founding a university.

Lectures started at the new school in the winter term of 1948-49. About 2,000 students joined the community of teachers and learners. Since the students had initiated the founding of the university, they were granted seats and votes in the Academic Senate, which was an enormous achievement. The Free University was supported by the financial and non-material help of American institutions like the Ford Foundation. Their donations helped to construct central buildings, the university library, the student village, Schlachtensee, and the Clinic Steglitz. Because of the destruction of the inner city, the university was looking for buildings and development area at the suburbs. Dahlem became an option since the American army had vacated buildings there to relocate to western Germany.

The number of students grew steadily through the 1950s. Faculty buildings were erected as well as the first student refectory. A number of formerly private villas in Dahlem were used by the university. The university grew steadily although the first years struggled with difficulties and an uncertain financial situation. Soon the Free University developed into a full university that offered



most of the academic subjects, including medicine. However, engineering was only offered at West Berlin's Technical University.

The building of the Berlin Wall in 1961 affected the Free University strongly. Until then, one-third of the students had come from East Germany and East Berlin. After the wall, this was no longer possible. Moreover, the new student generation was not caught in the thought-patterns of the 1950s. In the middle of the 1960s, a student movement took shape in Berlin. The growing number of students, confronted with the insufficient options to influence university decisions; the entanglement of parents, politicians, and institutions during the time of time of National Socialism; the new scientific study of Marxist ideology; and the war in Vietnam all contributed to a strained situation that could not be solved in a conventional way. The shooting of a student during a demonstration against the Shah's visit in 1967, and the assassination in 1968 of Rudi Dutschke, one of the most influential speakers of the students, stirred both the university and the city and led to reconsiderations on all sides. West Berlin's senate agreed upon a fundamental university reform. The new constitution of the so-called "group university" allowed professors, assistants, students, and employees to participate in the decision-making process of the university. With this, the state hoped to bring the protesting students back to the university. At the same time, large amounts of money were invested in extending the university. The new distribution of power was met by the resistance from professors, and according to a decision of the Federal Constitutional Court some changes in the regulations had to be made after some years.

In the seventies both the influence of political groups and of the state administration increased. Structural reforms at the Free University, however, largely continued. The main problem of the 1970s was the continuing growth of the university. The educational policy, the high youth population, and the political and social climate attracted a student body that, in its open-minded independence and non-conformity, differed from that of many West German universities. With the integration of the Teacher Training College, the student number rose to over 30,000. About half of these students came from West Germany and 7 percent from abroad. At the same time the university opened a newly built complex for the humanities and ultra-modern institutes for the natural sciences.

The 40th anniversary of the Free University saw another form of student protest. The study situation had worsened in the 1980s as the number of students

increased to about 60,000 while the university was less supported by the state than before. After a long student strike the situation improved.

With the falling of the Berlin Wall in 1989 the historical reasons for the separation of the Free University have abated as well. It is now up to the Senate of Berlin to take over the responsibility for the universities in East and West Berlin. This will also have consequences for the Free University, which is currently the third biggest university in Germany.

At the Free University, students can study subjects in the humanities, the social and natural sciences, and medicine. About two-thirds of the 55,000 students are enrolled in the social sciences. With its university clinics Steglitz and Rudolf Virchow in Wedding, and with subjects such as physics, chemistry, and geoscience, the university has taken a top position in the Federal Republic. This is also true for the faculties of economics, law, and politics. "Small subjects" like religious studies, ethnology, the study of Asian and Ancient cultures, aesthetics, and musicology are also represented at the Free University.

Today the Free University is the most important place of education for physicians in Germany. Both hospitals treat more than 90,000 in-patients annually. In the outpatients' departments, more than 100,000 people are being helped. Moreover, about 150,000 first-aid cases are treated each year. The technical equipment of the hospitals matches the latest developments. The university has two dental clinics in Wilmersdorf and Wedding that treat 7,000 to 10,000 patients each year.

The Free University offers state or academic degrees in more than 90 subjects. The education of 5,500 foreign students helps to spread Germany's and Berlin's reputation abroad. Annually about 1,500 guest professors come to the university that has partnership contracts with some 50 universities worldwide. The university is involved in European community programs that enable integrated study at different European universities.

Research at the university is financed partly by its own means, partly by third parties such as foundations, enterprises, and authorities. These means have increased from 40 million marks in 1981 to 103 million marks in 1991, and can be understood as a sign of the research potentials and future achievements of the Free University of Berlin.

—Wolfgang Holtkamp



# GALLAUDET UNIVERSITY

## (Washington, D.C., U.S.A.)

<b>Location:</b>	In Washington, D.C., about seven miles northeast of the Capitol Building.
<b>Description:</b>	A university for the deaf established as the Columbia Institution in 1857.
<b>Information:</b>	Visitors' Center Gallaudet University 800 Florida Avenue, NE Washington, DC 20002-3695 U.S.A. (202) 651-5050 (voice & tty) Fax (202) 651-5704

The roots of Gallaudet University trace back to a modest school for the deaf and blind organized by Amos Kendall, a politician who served in two presidential administrations and a philanthropist who made a fortune through investments in Morse's telegraph. In 1856, a man whom Kendall refers to in his records only as "an adventurer" brought a number of deaf children with him from New York to Washington, where he solicited funds with which to found a school for the deaf. The project nearly collapsed when the man was legally accused of mishandling the money he had collected, and most of the children in his charge were returned to their parents. Five of the youth fell under Kendall's guardianship, however, for they were émigrés without families to take them back.

Kendall and the other trustees of the incipient school agreed to go forward with their plans even without their original leader, for they were still impressed by the need to educate the children in Kendall's care, as well as 20 or 30 deaf, blind, and retarded children residing in their district. Kendall donated a house and two acres of land from his expansive estate, known as "Kendall Green," and he singly paid to furnish supplies and a superintendent. Then Kendall persuaded the U.S. Congress to incorporate his little school under the name of "The Columbia Institution for the Instruction of the Deaf, Dumb, and Blind" on February 16, 1857.

The following May, Kendall retained Edward Miner Gallaudet to serve as the new superintendent of the Columbia Institution, while he assumed the presidency. Gallaudet was then just 20 years old, and had headed no institution, either educational or other. He was, however, the son of Thomas Hopkins Gallaudet, who in 1817 founded the first permanent school for the deaf in the

United States, the American Asylum at Hartford (Connecticut) for the Instruction of the Deaf and Dumb. The elder Gallaudet married one of his deaf pupils, Sophia Fowler, who gave birth to Edward on February 15, 1837. Thus, while Edward Gallaudet was only a young teacher of the deaf at his father's school when Kendall approached him, he had almost literally been raised for the post he was granted.

When Gallaudet arrived, the Institution was essentially a small boarding school located in what was still a rural section of Washington. During his first year in office, Gallaudet and three assistants, aided by three servants, instructed 12 deaf and 3 blind children. Even eleven years later, when the last class of blind students were transferred to a school in Maryland, there were fewer than 60 students total.

Gallaudet spoke to Kendall and the trustees about founding a college for the deaf from the time of his arrival. His plan was well received, but progress toward its realization was slow. In 1864, Gallaudet drafted a proposal that the Columbia Institution be allowed to grant college degrees. Senator Grimes of Iowa presented Gallaudet's plan to Congress that spring, and it was enacted into law on April 8. The National Deaf-Mute College was inaugurated on June 28. Kendall ceded the presidency to Gallaudet at the inaugural ceremony, and died five years later, at the age of 80. The college also granted its first degree on inauguration day, an honorary M.A., awarded to John Carlin, an influential deaf painter and deaf advocate.

The college existed in name and intent only until later that year, for it was entirely without facilities, professors, and students. In 1865, a federal grant of \$26,000 was set aside for the purchase of 14 acres adjacent to the original campus at Kendall Green, under the stipulation that the land be used for the instruction of male pupils studying horticulture, agriculture, and mechanics. The college began operating out of a small house on the acquired property that September, having enrolled 13 students. Two years later, Gallaudet hired landscape architect Frederick Olmsted to draw up site plans for the new campus. Still another year passed before Congress appropriated funds sufficient to begin construction, and the Main Building did not open until 1871.

The curriculum and manner of instruction at the college were revised in its first few years of operation. Seniors in the first class at the college received a traditional training; they studied anatomy, physiology, zoology, logic, mental philosophy, evidences of Christianity, English literature, and aesthetics. Gallaudet traveled to Europe in 1867 to study the methods by which the deaf were instructed



*Gallaudet University*

abroad, and upon his return, he issued that courses in speech and lip reading should be taught at the institution, despite the fact that speech was possible only for a minority of deaf students. That year, the directors voted to allow some hearing people to teach various courses, and in 1891, they created the Normal Department, a program devoted to the training of hearing teachers of deaf students.

The directors of the institution granted women the right to enter the college in 1887, on a provisional basis. They had been moved by a young woman's paper calling for the right of women to enter deaf schools which the author read at a convention of the American Instructors of the Deaf. The first six women to enroll were housed in Gallaudet's own home, for the college had no other appropriate facilities. Women enrolled in later classes were accommodated elsewhere, but a dormitory was not constructed for women until 1917.

In 1878, the faculty wrote to the board of directors asking that the name "National Deaf-Mute College" be changed, both because it was somewhat distasteful, and

because it was inappropriate; 23 of 52 students enrolled that year were in fact capable of speech. However it was not until 1894 that the name of Gallaudet College was officially adopted for the school, in honor of Thomas Gallaudet. The Kendall School and the college were then defined as the two divisions of the institution. The elder Gallaudet is a hero to the deaf in this country, for he traveled to Europe in 1815, 52 years before his son's venture, in order to study the methods by which deaf children were taught in England and France. He himself became expert in pantomime, and he was instrumental in the development of American Sign Language. His statue has adorned the Kendall Green since 1889.

While the college remained quite small for many years—the class of 1891 had only one graduate—its alumni did well professionally. A member of the class of 1869 became the principal of the Western Pennsylvania Institution for Deaf Mutes. An alumna of the class of 1872 edited and published a newspaper in Massachusetts. Jamini Nath Banerji, who attended the Normal School in



1895, founded one of very few schools for the deaf in India, and of course, many graduates taught the deaf at institutions across the United States.

President Gallaudet retired in the spring of 1910, having served 53 years at the institution. He died seven years later, at the age of 80. The directors elected Dr. Percival Hall the next president of the college. After being graduated from Harvard with a bachelor's degree, Hall enrolled in the Normal Department at Gallaudet. He spent two years teaching at the New York School for the Deaf, and then returned to Gallaudet, where he served the institution in various capacities before assuming its leadership: he was Edward Gallaudet's secretary for several years, a mathematics teacher, head of the articulation program, and then head of the Normal Department.

The college was doing badly in many respects when Hall took over, despite Gallaudet's great achievements. The plant was overcrowded and generally in poor condition; teachers were underpaid and often left the college to take better salaries elsewhere; and only half of the students entering the college were graduating. Hall coped with these problems throughout his administration, but progress was slow. The college remained financially strapped, as the nation passed through the Great Depression and two World Wars during Hall's tenure. He is remembered today for having diversified the curriculum at the college, and for establishing a research department in 1937. Hall retired on May 7, 1945, having worked at Gallaudet for 50 consecutive years. He died eight years later, at the age of 81.

Dr. Leonard M. Elstad was elected the next president of Gallaudet, 22 years after being graduated from the Normal Department in 1923. After receiving his degree, Elstad held teaching and administrative positions at several schools for the deaf, including the superintendancy of the Minnesota School for the Deaf. Elstad succeeded in doing for the College what his predecessors had only dreamed of. In 1955, he successfully solicited the House Appropriations Committee of the U.S. Congress for funds sufficient to back a major renovation of Gallaudet's plant. Between 1955 and 1969, 18 new buildings were raised on campus, and six new areas of study were added to the curriculum. Thanks to these improvements, the Middle States Association of Colleges and Secondary Schools accredited Gallaudet in 1957. Five years later, Elstad oversaw the formation of a program for deaf students leading to a master's degree in education.

Gallaudet has prospered since Elstad's retirement in 1969. Dr. Edward C. Merrill Jr. was elected Gallaudet's fourth president that same year, and he oversaw the foundation of several new departments in the college: the School of Education and Human Services, the School of Communication, and the College of Arts and Sciences, each of which was granted its own dean. Dr. Merrill's two immediate successors served brief terms: Dr. W. Lloyd Johns resigned before his formal inauguration, having

been elected president in 1983. President Jerry C. Lee served between 1984 and 1987. It was during Lee's administration that U.S. President Ronald Reagan signed the Education of the Deaf Act, which accorded Gallaudet the rank of university, whereupon the Consortium of Universities of the Washington Metropolitan Area granted Gallaudet full membership.

The only episode of substantial student unrest at Gallaudet followed the trustees announcement of March 13, 1988, that they had selected Dr. Elisabeth A. Zinser to serve as Gallaudet's seventh president. Gallaudet students and deaf advocates from around the country were outraged that several qualified deaf candidates had been passed over in favor of Zinser, who can hear. A protest evolved into a "Deaf President Now" (DPN) movement, which shut down the university for a week, and attracted the attention of the international press. The protesters demanded the resignations of Zinser and Jane Bassett Spilman, chairperson of the board of trustees, and pushed for the election of Dr. I. King Jordan, the deaf dean of the College of Liberal Arts and Sciences.

At least eight groups publicly urged the university's search committee, formed in September 1987, to pursue and elect a deaf president. The DPN movement was eventually organized by one of those eight groups, known as the "Ducks." The Ducks were six deaf men associated with the National Association of the Deaf who originally met to discuss various issues including, but not limited to, the need for Gallaudet to elect a deaf president. When the search committee reduced a pool of 67 applicants to six qualified semi-finalists the following January, three of whom were deaf, the Ducks stepped up their advocacy activities from mere letter-writing. They contacted members of Congress and the press, and they organized a rally to take place March 1 on campus.

Deaf advocates from across the country gathered at Hotchkiss Field, the Gallaudet football stadium, where stickers and yellow buttons reading "Deaf President Now" were distributed. Numerous speeches were delivered, in sign language, first at the stadium, and later at the Kendall School, where the rally moved when the weather turned bad. Rebelliously signing "Deaf President Now," the crowd marched across campus, and then gathered again on the mall. There, Gary Olsen, head of the Ducks, told them to be proud of their deafness, thus resounding one faculty member's statement that a hearing president represented the "dark ages of paternalism" and the notion that deaf people are pitifully handicapped and must be cared for by hearing people.

When the board of trustees announced their selection of Zinser on Sunday, March 8, a group of protesters marched to the Mayflower Hotel, where Spilman was staying. Before Spilman could address the crowd, which was large and vocal enough that the police had been called in to contain the situation, Olsen led a march to the White House and the Capitol. The marchers returned to



Hughes gym around midnight, where protests continued and several members of the Ducks formulated a strategy for installing ■ deaf president, even as their cause appeared lost. They decided to block five entrances to the campus that Monday morning, and thus they succeeded in shutting down the university.

The protesters threw their support behind I. King Jordan, one of the three deaf semi-finalists selected by the search committee. Jordan initially announced that he would abide by the committee's decision, but he joined the protesters on Thursday, the fourth day that the university was shut down. Jordan's change of mind came when he realized that the DPN movement was a legitimate promotion of deaf people's civil rights. That same day, Zisner announced her resignation, and Spilman followed suit Friday morning.

The protesters marched to the Capitol a second time that Friday, to press their demand for ■ deaf president. The press openly expressed their support for the DPN

movement, which was commonly compared to the black civil rights march in Selma, Alabama. The board of trustees met again that Sunday at the Embassy Row Hotel, and there decided to offer Jordan the presidency, which he happily accepted. Within a week, the backers of the DPN movement had accomplished their objective, and ushered in a new era at Gallaudet.

**Further Reading:** The only monographic history of Gallaudet is *Gallaudet College, Its First One Hundred Years* by Albert W. Atwood (Washington, D.C.: Gallaudet College, 1964). The DPN movement is recorded and analyzed in fine detail in *Deaf President Now! The 1988 Revolution at Gallaudet University* by John B. Christiansen and Sharon Barnart (Washington, D.C.: Gallaudet University, 1995).

—Christopher Hoyt

# GEORGETOWN UNIVERSITY

## (Washington, D.C., U.S.A.)

- Location:** On a 104-acre campus overlooking the Potomac River in the historic Georgetown district, a ten-minute drive from downtown Washington, D.C.
- Description:** A Roman-Catholic, coeducational institution, with an enrollment of nearly 12,000 undergraduate and graduate students from all 50 states and 110 foreign countries. The undergraduate ranks number about 5,600 students, divided almost evenly between men and women.
- Information:** Office of Undergraduate Admissions  
Georgetown University  
Washington, DC 20057-1002  
U.S.A.  
(202) 687-3600
- Visiting:** Contact the Admissions Office for a schedule of tours offered Monday through Saturday.

A Jesuit institution originally founded for men, Georgetown University is one of the most influential learning institutions in the United States, partly because of its location in the nation's capital and partly because of its graduate and professional schools. Georgetown's Walsh School of Foreign Service is the largest school of international relations in the world and the oldest in the United States. The Georgetown campus is steeped in history, having attracted political notables from George Washington to Bill Clinton.

Georgetown dates its founding to 1789, the year that saw the establishment of the United States of America. In actual fact, 1789 was the year land was acquired for the school; it did not open for another two years. The school's founding father was John Carroll, a Maryland native who had joined the Jesuit order (Society of Jesus) in 1753. Carroll had been teaching in Europe when Pope Clement XIV began suppressing the Society of Jesus, in response to pressure from European governments anxious to achieve more power over the church within their countries. The action drove Carroll back to the American colonies. There, he became an ardent supporter of the American Revolution, which seemed to promise the opportunities to restore the Jesuit order in America and free Catholics from the discriminatory treatment suffered by the religious minority.

After the American victory in the revolution, Carroll saw far-reaching possibilities for Catholic education in the new republic. In 1786, he wrote a prospectus for his proposed college, citing as its mission: "to unite the means of communicating Science with an effectual Provision for guarding and preserving the Morals of Youth." The prospectus also noted that "the Seminary will be open to Students of every Religious Profession." In 1789, the same year he was named the first bishop of the American Catholic Church, Carroll secured the title to 60 acres of land overlooking the village of Georgetown, a prosperous tobacco port in Maryland. He wrote: "We shall begin the building of our Academy this summer. In the beginning we shall confine our plan to a house of 63 or 64 feet, by 50, on one of the most lovely situations imagination can frame. . . . On this Academy is built all my hopes of permanency and success of our religion in the United States." As he prepared to receive students, Carroll was pleased to learn that the nation's capital would be established in the neighborhood, giving the school added prominence.

On November 22, 1791, the school welcomed its first student, William Gaston, who later would represent North Carolina in the U.S. Congress. The school included an institute to train candidates for the Jesuit order and a separate lay school of three divisions, comparable to modern-day elementary school, high school, and college. Elementary-level students studied reading, writing, grammar, arithmetic, geography, and beginning Latin. College-level students focused on Latin, Greek, and English literature, natural science, and philosophy. By 1793, the lay school had 60 students and the faculty had seven members. Tuition was about \$44 a year; board was an additional \$133. Four years later, Georgetown College received its first visitor of distinction when retired president George Washington arrived to visit two nephews who were enrolled as students.

Despite its ideal location, the school was plagued with poverty, insufficient faculty, and low enrollment for its first two decades. By the turn of the nineteenth century, the campus consisted of two unimpressive buildings, "Old South," a country schoolhouse, and "Old North," an austere, unfinished structure. Enrollment had reached only 76, less than a fourth of whom were sufficiently advanced for college-level instruction. By 1806, enrollment had fallen to 34, and Carroll, now an archbishop, recommended temporary suspension of the school. The situation did not improve until 1812 when the task of saving the school was assumed by three energetic Jesuits: Father John Anthony Grassi, who became the school's



*Georgetown University*

president that year, and his successors, Father Peter Kenney and Father Thomas Mulledy.

A native of Italy, Father Grassi resisted calls to move Georgetown College to the thriving metropolis of New York, predicting that the then-backward city of Washington would become an international center. He revitalized the faculty and repaired and enlarged classrooms and living quarters. He warned against complacency, advocating self-criticism as the means to continued improvement. During the War of 1812, the college inhabitants could see the flames as the British set fire to Washington. Fortunately, the college was spared invasion. The year 1814 brought welcome news: Archbishop Carroll announced that the Society of Jesus was formally restored worldwide, giving new impetus to Jesuit activities. A year later, Georgetown College was officially chartered by the U.S. government.

In 1817, the college welcomed more distinguished visitors. Eight Native American chiefs, in Washington to discuss land matters with President James Monroe, stopped at the college to thank the Jesuits for their missionary activities in Indian territories. Father Grassi had been succeeded by the Irish-born Father Peter Kenney,

who strengthened the capabilities of the faculty by sending several teachers to study in Europe. Father Thomas Mulledy, president from 1829 to 1837, raised academic standards, reorganized the curriculum, further improved the quality of the faculty, and began an advertising campaign to promote enrollment. Georgetown College was now firmly entrenched.

In 1841, under Father James Curley, Georgetown began planning an astronomical observatory, only the third such installation in the United States. The three-story brick structure was completed in 1844 and astronomy was added to the curriculum. In 1842, English novelist Charles Dickens visited America and described Georgetown College as "delightfully situated, and, so far as I had an opportunity of seeing, well managed. . . . The heights in this neighborhood, above the Potomac River, are very picturesque; and are free, I should conceive, from some of the insalubrities of Washington. The air, at that elevation, was quite cool and refreshing, when in the city it was burning hot."

True to Archbishop Carroll's intent that the school be open to students of all faiths, Protestants had comprised



nearly 20 percent of the student body in the first ten years the school was open. By the 1830s, Jewish students were attending Georgetown. The school's nearness to Washington gave a cosmopolitan flavor not only to the student body but to the faculty as well. Among the professors were Jesuit emigres from Italy, Germany, Poland, and Belgium. Until later in the nineteenth century, however, the student body continued to be comprised of boys from 10 to 16 years of age.

In the late 1840s, an anticlerical movement in Italy drove out several eminent Jesuit scientists who immigrated to America and became welcome additions to the Georgetown faculty. One was Father Benedict Sestini, former head of the Roman College Astronomical Observatory and a brilliant physicist and mathematician. Another was Father Angelo Secchi, who stayed at the school only a year and later became director of the Vatican Observatory in Rome. Others included Torquatus Armellini, John Baptist Pianciani, Joseph Ardia, Michael Tomei, Antonio Maraschi, and the brothers Francisco and Salvatore Tongiori, all highly respected in theological and philosophical circles.

In 1849, Georgetown established its first professional school when a group of doctors excluded from the Washington Infirmary by an insiders' clique asked the college to provide them with medical facilities. The college leased a building in downtown Washington for classrooms, a dispensary, and a six-bed infirmary. This was the beginning of the Georgetown School of Medicine. Three years later, Georgetown embarked on further advances when Father Bernard A. Maguire became head of the school. A youthful and dynamic administrator, Father Maguire improved the curriculum, developed new student organizations, and took other steps to keep both the students and the faculty performing at a high level.

The Civil War caused a devastating interruption in the school's progress, leaving the school, in Father Maguire's words, "nearly ruined." Despite its cosmopolitan surroundings, Georgetown was effectively a Southern school. Four-fifths of the Georgetown alumni who served in the war fought for the Confederacy. Enrollment fell from 313 in 1859 to a mere 17 in the autumn of 1861. For a time, Federal troops were billeted on campus; later, school buildings were converted into hospital facilities for wounded soldiers. In 1866, Father Maguire resumed his presidency and worked to rebuild the school. Buildings were repaired and enlarged, the campus was relandscaped and, by 1867, enrollment was up to 250. Symbolizing the nation's reunification, Georgetown adopted blue and gray as its official colors.

The recovery of the school itself was indicated in 1870, when Georgetown established its second professional school, the School of Law, funded by local attorneys. Then, in 1873, Georgetown came under the direction of one of its most renowned presidents, Reverend Patrick Healy, son of a New England ship captain and

a former slave woman. Nicknamed the "Spaniard" by his students for his dark good looks and his imperious demeanor, Healy not only maintained the school's academic improvements, he also implemented scientific studies well beyond those found in most other colleges. He ordered construction of a splendid Flemish Renaissance building to house a new library, classrooms, and laboratory facilities; the building is now known as Healy Hall. He also founded the Georgetown Alumni Association in 1880.

In 1889, Georgetown University celebrated its 100th anniversary. The centennial ceremonies were attended by U.S. President Benjamin Harrison and Secretary of State James G. Blaine, among others. Guests were greeted by the inscription: "Congratulations, Venerable Mother . . . You alone, among all the colleges, have lived as long as the republic." Speakers stressed the importance of future progress, appropriately symbolized by Thomas Edison's new multicolored electric lamps adorning the historic Old South Building.

The school began its second century under the leadership of Reverend Joseph Havens Richards, the son of an Episcopal priest. Richards introduced graduate courses in arts and sciences. He also enlarged law and medical school facilities. World-renowned astronomer Father John Hagen joined the faculty, bringing new vigor to the astronomy department and renovating the observatory. In 1892, groundbreaking ceremonies started construction of the new Chapel of the Sacred Heart, a modest English Gothic structure financed by alumnus John Dahlgren at the cost of \$40,000.

At this time, more than 100 students were enrolled in Georgetown's medical school. In 1873, facilities were expanded to allow for studies in bacteriology, histology, and analytical and practical chemistry. Up to now, the medical school had refused to accept females, but when an ambitious young woman named Louise Taylor applied in 1898, the school allowed her to take an anatomy course, making her Georgetown's first coed. A university hospital was established that same year. Georgetown's School of Law also was prospering, graduating more than 100 students in 1891 alone. Georgetown's law students were distinguishing themselves in intercollegiate debating. The school's athletes, meanwhile, were also achieving renown, especially in baseball and football.

The beginning years of the twentieth century saw even more rapid progress at Georgetown. The Washington Dental College was absorbed in 1901, and a nursing school was established in 1904. By 1914, total enrollment neared 1,400, a far cry from the 17 students recorded little more than a half-century earlier. Of the new total, some 900 were law students. As dean of the Medical School from 1901 to 1927, Dr. George Kober led his school through an era of reform that was to revolutionize medicine. Georgetown achieved additional distinction as its observatory added seismological equipment and began

recording earthquakes, up to then a field of study that had received little attention.

Professional school enrollment declined somewhat during World War I, and the student body was mobilized by law into the Students' Army Training Corps. In 1919, Georgetown's Preparatory School separated from the university and was relocated to suburban Maryland. That same year, Father Edmund A. Walsh established the Walsh School of Foreign Service to prepare students for diplomatic or international business careers. Enrollment in foreign service studies reached 500 within just five years. In the late 1920s, Georgetown's football team achieved its highest level of performance to date under Coach Lou Little. The construction of several new facilities on campus evidenced the university's continued growth.

Even the Great Depression failed to stop progress at Georgetown. The graduate school was formally established during those years under the presidency of Father Arthur O'Leary. During World War II, the main campus became a testing place for the Army Specialized Training Center. As is to be expected, enrollment in most of Georgetown's professional schools dropped during the war, although the medical school maintained its prewar enrollment level and began engaging in vital research. In 1944, the graduate school for the first time opened its doors to women.

In the post-war years, enrollment doubled as the G.I. Bill provided new opportunities to those who otherwise could not have afforded a college education. By 1949, Georgetown's School of Medicine was conducting important research into arthritis and cancer. It was at the Georgetown Medical Center in the 1950s that Dr. Charles A. Hufnagel made unprecedented advances in the treatment of arterial defects and the use of artificial valves. Georgetown also pioneered the use of the artificial kidney and curative operations on the human brain.

There have been periodic clashes at Georgetown between the principles of academic freedom and the university's Roman-Catholic tradition. In a 1950 commencement address entitled "The Sacred Fetish of Academic Freedom," Georgetown President Hunter Guthrie provoked considerable consternation when he said:

Freedom must be limited by belief in God, by faith in the omnipotence of truth, and the beneficence of justice. Freedom springs from truth but still truth is rarely freedom's offspring. . . . [Academic freedom is] the soft underbelly of our American way of life and the sooner it is armor plated by some sensible

limitations, the sooner will the future of this nation be secured from fatal consequences.

In 1992 a strategic planning document reinforced the school's open-admissions policy to ensure class, cultural, and religious diversity in the student body as well as the faculty. A Jesuit dean noted that "a person's religion plays no part in hiring, tenure, promotion, the awarding of grants, or the securing of funds. In fact, most of us don't know each other's religious beliefs."

Today, in addition to professional schools of medicine, law, foreign service, and nursing, Georgetown has schools of business and of languages and linguistics. The campus contains some 60 buildings in addition to a recreation complex and athletic fields. Historic Old North, completed in 1795, still stands today. President George Washington once addressed the students from its south doorway. More recently, President Bill Clinton, a 1968 graduate of Georgetown's School of Foreign Service, spoke from the same location during the week of his inauguration.

The best-known building on campus is the Flemish Renaissance structure Healy Hall, which has come to symbolize the university. One of its parlors houses the university's art collection, which includes works by Gilbert Stuart, John Neagle, and John Wollaston, as well as such European masters as Sir Anthony Van Dyck and Luca Giordano. Georgetown's three libraries together hold more than 1.7 million volumes, including the Woodstock Theological Library, one of the best Roman-Catholic collections in the nation. The spiritual center of Georgetown University is the Dahlgren Chapel of the Sacred Heart, a dignified English Gothic structure dedicated in 1893.

**Further Reading:** *Georgetown University, First in the Nation's Capital* by Joseph T. Durkin (Garden City, New York: Doubleday, 1964) provides an interesting and informative account of the university's history, particularly its first century. The conflict between religion and secular education, with references to Georgetown, is discussed in the following two books: *Catholic Higher Education, Theology, and Academic Freedom* by Charles E. Curran (Notre Dame, Indiana: University of Notre Dame Press, 1990); and *From the Heart of the American Church: Catholic Higher Education and American Culture* by David J. O'Brien (Maryknoll, New York: Orbis, 1994).

—Pam Hollister



# GEORGIA AUGUSTUS UNIVERSITY OF GÖTTINGEN

## (Göttingen, Germany)

<b>Location:</b>	In Göttingen, Germany.
<b>Description:</b>	A state university of 30,000 students with faculties of Protestant theology, law, medicine and dentistry, mathematics, history and philology, physics, economics, chemistry, earth sciences, biology, agriculture, social sciences, education, and forestry.
<b>Information:</b>	Georgia Augustus University Wilhelmsplatz 1 Göttingen 39-4341 Germany

Göttingen as a place derives its name from a village in what was to become the Prussian province of Hanover, known from mid-tenth-century documents. The late medieval town developed in the fourteenth century, but was unremarkable until its world-renowned university was built. The town has now come to exist primarily on account of its famous university, the Georgia Augustus, founded in 1734 and opened in 1737 by the Kurfürst George Augustus, elector of Hanover and King George II of England (the Kurfürstentum was united with the English throne from 1714). Although one of the youngest universities of old Germany, only older than Erlangen (1743), by 1777 it was Germany's largest and best-administered university, with over 3,000 students. Thirty Nobel Prize winners have taught or studied at it. The university and the famous names associated with it, some of whom are commemorated by statues distributed throughout the town, are what give Göttingen its continued renown.

Town officials attempted to found a university first in the 1540s. It was another 200 years before king George II agreed on the town as the site of a university to be built in his honor. The small village was chosen specifically because of its remoteness and available land—the low cost of living, for example, compared to Berlin, was an advantage to students. Another advantage of the new university was its riding hall and stables—not common in city universities. Court architects created a dazzling modern university, in the neoclassical style. Its charter specified complete freedom of inquiry, and students were given the uncommon privilege of library use (the standard was a library restricted to faculty). The famous library was housed from 1809 in buildings from a late thirteenth-century Dominican monastery.

The university was endowed by a deed dated December 7, 1736, and immediately established its reputation by appointing such outstanding figures to its professorial chairs as Albrecht von Haller and Christian Gottlob Heyne, who were among the foundation appointments, J.L. von Mosheim, the noted theologian and ecclesiastical historian, the jurist G.L. Böhmer, and the classical scholar J.M. Gesner. The actual work of founding the new institution was left by King George II to Gerlach Adolph von Münchhausen from Halle, later to become Hanoverian Resident in Great Britain and Hanoverian prime minister in 1765.

It is largely due to Haller and Münchhausen that Göttingen developed its liberal tradition, favoring intellectual academic freedom against the prevailing authoritarianism of the German university system. Münchhausen reformed the method of appointing professors along the lines already adopted by Douze in the Low Countries, relying on a lay appointing committee. Students were successfully attracted away from Halle, Helmstedt, Jena, and Leipzig, and the 1734 statutes enshrined the liberal principles which were originally the foundation for Göttingen's success, to which it has invariably remained faithful, and which still distinguish it today.

The ceremonial opening took place three years after the statutes had been promulgated and the first students admitted, on September 17, 1737. The celebrated philological seminar was founded, as well as the equally famous observatory, the botanical garden, and the library. Haller's appointment was itself a strident declaration. He was an early academic surgeon, whose craft was still commonly rated with that of the barber as inferior to that of the physician. (In Great Britain not even anatomy was systematically taught before 1705, and chairs of clinical medicine were not established there until 1741.)

The most important subjects at Göttingen in the eighteenth century remained those of the law faculty, but Göttingen was not founded merely for the training of administrators. In 1751 the university became the home of Hanover's royal society (*Königliche Sozietät der Wissenschaften*), a research institute that aspired not to teach but only to discover. By adopting the academy, founded by Haller and divided into three sections devoted respectively to the physical sciences, mathematics, and history linked to philology, the new university at Göttingen united teaching and research, now commonly associated with universities. This combination in the same institution was an important innovation.

The Göttingen library quickly grew; by 1900, it held half a million volumes, with over 5,000 manuscripts.





*Georgia Augustus University of Göttingen*

There was also a mathematics institute, another eighteenth-century research foundation joined to the university, among whose members were Karl Friederich Gauss and Bernhard Riemann.

So many teachers and scholars of world renown were associated with Göttingen's university even in the eighteenth century, that there is a danger of seeing the institution's history in terms of individual achievements. But in the history of Göttingen the sum is truly greater than the parts. The exacting scholarly research into classical antiquity and the obsessive urge to publish characterized Gesner's *Philologisches Seminar* and spread to classical scholarship throughout Germany. But this took place against the backdrop of research undertaken in the natural sciences. Although the work of scholars such as historian August Ludwig Schlözer, lawyer Johann Stephan Pütter, or economist Johann Beckmann, can be weighed for individual achievement, Göttingen's university is chiefly known for bringing individuals together for concerted action and for fostering academic values throughout all

research and teaching activities of the university. Napoléon himself respected these values, the interdependence of teaching and research, at the university of Göttingen, choosing it to be an institution of world rank when Helmstedt, Giessen, and Marburg were closed in Westphalia between 1806 and 1813.

With the new great hall built for the 1837 centenary barely completed, a new generation of Göttingen scholars backed a formal protest against the abrogation by King Ernest Augustus of the 1833 liberal constitution of Hanover. (Ernest Augustus, the fifth son of George III of England, had studied at Göttingen.) The seven professors to protest, known as the "Göttingen Seven," were removed from office on December 14, in spite of widespread sympathy throughout the German academic world, and they were by no means isolated in their indignation. Led by the Germanist W.A. Albrecht, the other six signatories of the protest were F.C. Dahlmann, classicist, historian, and liberal politician; the theologian Heinrich Georg August Ewald; the literary historian G.G. Gervi-

nus; the famous brothers Jacob and Wilhelm Grimm, who also had been students at the university; and the physicist Wilhelm Weber. Ernest Augustus succeeded in imposing his new constitution in 1840, but Göttingen has always been proud of its seven protestors. It was in consideration of this precedent that another group of Göttingen professors made a protest in 1957. Led by C.F. von Weizsacker, 18 atomic physicists warned the German chancellor, Konrad Adenauer, that they would have nothing at all to do with the development of atomic weapons. Since Göttingen's Nobel Prize winners include names such as Max Born, James Franck, Werner Heisenberg, and Max von Laue, the views of the university's physicists have naturally come to carry weight.

The immediate result of the 1837 dismissals, however, was intellectually destructive and led to a further decrease in student enrollment, which had already been halved between 1823 and 1834. On the other hand, the 1848 liberal disturbances throughout continental Europe increased Göttingen's standing, and since Hanover's annexation by Prussia in 1866, the university, upgraded in status, again prospered. Shortly after the turn of the century there was ■ teaching staff of 121 and ■ student population of 1,529. At this time, the library holding contained the richest collection of modern literature in Germany—the library had been much rebuilt and extended between 1879 and 1882—and much new construction was undertaken in the early years of the twentieth century.

Meanwhile, Göttingen had gestated two other widely known cultural developments. The first was the formation of ■ group of student poets called the Göttinger Hainbund, also known as the Göttinger Hain or the Göttinger Dichterbund. This student league became deeply interested in the newer emotional forms of poetry emerging in the work of Friedrich Gottlieb Klopstock, especially his odes, which had been published in collected form in 1771. The league members reacted against what they regarded as the artificial elegance of the verse of Wilhelm Wieland (1733–1813), and rallied to the *Göttingen Musenalmanach*, the university publication. The story is that the group spontaneously gathered on a moonlit walk on September 12, 1772, and made a vow of everlasting friendship that was sealed by a dance around an oak tree, and then met regularly to read poetry. Many of its members went on to make important contributions to German poetry, drama, or fiction. The poet and translator Johann Heinrich Voss was one of its members and, from 1775, was editor of the *Göttinger Musenalmanach*. Others included H.C. Boie, L.P. Hahn, G.A. Burger, L.H.C. Holty, and J.M. Miller. Contemporary with the cultural phenomenon known as *Sturm und Drang* in Germany, the Göttinger Hainbund is culturally linked to the whole western European movement known as pre-romanticism.

The *Göttinger Musenalmanach* itself had been founded in 1770 and was edited by Boie until 1775, at first jointly with F.W. Gotter. Klopstock's work was fea-

tured from the second issue on, and from the third the poetry selection was closely associated with Göttingen Hainbund. Voss took over the editorship in 1775, but the almanac was losing its importance, although it continued publication until 1804, later under L.F.G. von Geockingk. Voss founded another almanac in 1775, and a competing *Göttingisches Magazin für Wissenschaft und Literatur* was published from 1780 to 1785, co-edited by G.C. Lichtenberg, professor at Göttingen from 1775, and G. Forster.

A further academic group of huge importance to emerge from Göttingen was that associated with Albert Eichhorn and devoted to setting New and Old Testament exegesis in its cultural context. From this arose the history of religions as an academic discipline in its own right. The foremost representative of this liberal historical school was probably Hermann Gunkel, who had taught at Göttingen from 1885 to 1888, when his academic differences with the more conservative A. Ritschl obliged him to move to Halle. The core of his method was to use old eastern cultures and literatures to contextualize the study of the Old and New Testaments, taking into account in his exegeses the late Jewish and Hellenistic environments in which the Christian scriptures were formed. This method led Gunkel to detract from the specific individuality of the canonical texts and their authors. Associated with Gunkel in Eichhorn's Göttingen group was Johann Franz Wilhelm Bousset, who came to Göttingen as a *privat-dozent* in 1890, and was made a professor of New Testament exegeses in 1896. Beginning in 1897, he edited the influential *Theologische Rundschau*, and from 1903, with Gunkel, the *Forschungen zur Religion und Literatur des Alten und Neuen Testaments*. The school, which was massively important in religious studies, included many other figures, notably J. Weiss and E. Troeltsch, and inaugurated modern biblical exegesis, which situates the sacred texts in their environmental origins.

Innovations in departments continued as well. In 1939 came the incorporation of the forestry college, and in 1952 agriculture was separated from natural sciences. A social science faculty was inaugurated in 1962. New subject areas, already in existence, were formally established in 1980 after the incorporation of a teacher training college in 1978.

The university remained open during World War I, in spite of extremely low numbers of students. After the war, returning veterans swelled its numbers. Soon Göttingen and its university were among the first to support the new Nazi Party, beginning the university's decline as an intellectual center. Most of the mathematics faculty, for example, were Jews forced to leave in 1933, and the university never regained its status as a world leader of mathematics. The university celebrated its 200th anniversary in 1937 as a university stripped of its academic freedoms, a place of numerous Nazi ceremonies and speeches. Nonetheless, the 1945 defeat of Germany

brought the opportunity for a new beginning, and Göttingen, its buildings undamaged by World War II, was among the earliest of the German universities to reopen. Political troubles surfaced again in 1955 with a defeated ministerial attempt in Lower Saxony to bring back some teaching staff discredited by their earlier national socialist activities.

In 1946 Göttingen became Lower Saxony's university, and the state acquired sufficient territory in the north of the town for the construction of the necessary new hospitals and institutes for agriculture, forestry, chemistry, and earth sciences. The humanities remained housed in the town center, where the state and university library was rebuilt and opened in 1992. In 1980, there were 14 different disciplines taught, of which 6 corresponded with the

earlier faculties. The student population has risen from 5,000 in 1950 to over 30,000 in 1990. Göttingen survived the 1968 student disturbances throughout Europe with comparatively little change, although further impetus was given to the structural reorganization integrating the university's management and streamlining the agglomeration of institutes, faculties, and seminars.

In 1990, a commission of examination declared the University of Göttingen among the best in Germany, and certainly the best in Lower Saxony. Its declared aim is to continue its academic work in research and teaching unencumbered by any form of political interference.

—Claudia Levi



# GUILFORD COLLEGE

## (Greensboro, North Carolina, U.S.A.)

- Location:** Guilford College is located in Greensboro, North Carolina, west of the center of North Carolina. The college is two hours by automobile from the Blue Ridge Mountains and about three and a half hours from the Atlantic Ocean.
- Description:** An independent, four-year college with 1,650 students, affiliated with the Society of Friends, or Quakers.
- Information:** Guilford College  
5800 West Friendly Avenue  
Greensboro, NC 27410-4173  
U.S.A.  
(800) 992-7759
- Visiting:** Guided tours of the campus are available Monday through Friday by appointment. For more information, call the phone number above.

Established in 1837 by the Religious Society of Friends (Quakers), Guilford College is the third oldest coeducational college in the United States. It was then known as New Garden Boarding School and was a preparatory school rather than a college. Not until the 1880s did school officials change the institution from a preparatory boarding school to a college.

The first years were important for Guilford College, which became the first coeducational school in the South, enrolling women decades before schools such as the University of North Carolina at Chapel Hill. In the first year, 25 boys and 25 girls enrolled at the small school in Guilford County. The principle of coeducation extended to the faculty as well; Jonathan Slocum and Nathan Hill taught the boys and Catharine Cornell and Harriet Peck taught the girls.

The opening of New Garden took several years. In 1830 the North Carolina Quakers became concerned about the lack of educational facilities in the state. After deciding in their yearly meeting to finance a boarding school, the Quakers began to raise money to build a school that would accept young men and women to learn to be teachers, and who would be allowed into the school regardless of their ability to pay.

For six years, North Carolina Quakers worked hard to raise the money needed to open the school. During the first three years, they were granted a charter by the state

legislature; they set up a working plan to run the school and a complete set of rules to govern its students before a single building was constructed or tract of land bought. The school's trustees decided that the school would include a boarding school house to accommodate nearly 50 students, who could attend for \$50 a year to be paid in quarterly installments.

In 1834, the trustees bought a 100-acre farm near New Garden and the old school house of Jeremiah Hubbard, one of the boarding school's staunchest advocates. Elihu Coffin bought 70 acres beside the tract and donated it to the school. Another 58 acres were purchased in 1838. The trustees began building New Garden Boarding School in 1835. The building, which was school and home to students for many years, had three front doors. On the east side was the entrance for the boys, on the west the entrance for the girls, and the central entrance was for faculty and visitors. Inside the building were separate school rooms for boys and girls and above were separate lodging quarters. The building also served as the dining hall, superintendent's office, book room and parlor. The original building, later named Founders Hall, was used until its demolition in 1971.

The founders of New Garden School received full value for the \$7,686 they paid for the building in 1837. A new Founders Hall was built for \$1.3 million in replication of its predecessor. It houses a dining hall, a student center, and offices for administrators.

Founders Hall was not the first building to replace its namesake on the campus. King Hall, the school's meeting house, was built in 1871. In 1881 it was given to the school by the state's Quakers. The building was named King Hall after the Baltimore Quaker Francis King who supported the founding of the school. Four years after its donation, King Hall burned down. From its burned bricks King Hall II and Archdale Hall were constructed. King Hall II housed the library, president's office, and classroom until it too burned in 1908. It was replaced two years later by King Hall III, which served as the college's main classroom space for 60 years. In 1949, a front was added to the building and 20 years later its rear was demolished, to the joy of many former students, who recalled its high ceiling and antique appearance. The building was chilly in the winter and its back staircase reminiscent of the small stairs found in a lighthouse.

Archdale Hall, dubbed by students Phoenix Hall after the mythological bird, is now the oldest building on campus, built in 1885. Francis King persuaded administrators to name it after John Archdale, a Quaker who served as North Carolina's governor from 1694–96. Except during



*Guilford College*

World War II when Archdale housed women, it was a men's dorm. In 1965, it was turned into faculty offices. It is one of 30 principal buildings on campus, including 6 dorms.

In its early years, New Garden Boarding School accepted students from ages 8 to 23, and each student's studies were individually tailored. Most classes would be considered elementary school material now, but some students did college-preparatory level work. Only Quakers were allowed to attend the boarding school until 1841, when its founders chose to admit other students because of a lack of funds to operate the school.

From the beginning, all students had to adhere to strict rules of conduct. The sexes were kept separate. Students were expected to dress in a conservative manner and not to use profane language; music and dancing were forbidden. Dancing finally was allowed on campus in 1933, after years of petitions by students. The board of trustees decided that whatever evil others might see in dance, they did not. Students had demanded the right for years, say-

ing that students at UNC Chapel Hill were given an advantage by learning such social graces. Guilford's decision to permit dancing came several years before other schools in the South.

One rule that took longer to relax was the required chapel. Until 1915, students were required to attend chapel six days a week as well as Sunday meeting. In 1940, the requirement was dropped to four days a week plus Sunday meeting, with voluntary silent meeting on Tuesdays. Even with required chapel and threats of punishment, there were discipline problems. Students in the 1920s threw spitballs at speakers in chapel. Later generations read newspapers and played cards during convocation. In 1968, the faculty, not wanting to suspend students for skipping chapel, met with the student legislature to form a compromise. In 1969, mandatory attendance at chapel was eliminated.

Fifty-one years after the first students attended New Garden, the school officially closed its doors. In its place came Guilford College, using the same buildings and



teachers, but with a different focus. With Lewis Lyndon Hobbs at the helm, Guilford had an administrator who spent a good portion of his life at the school. At the age of 15 he attended New Garden for eight years before leaving for college in 1872. He returned to New Garden in 1876 as an assistant teacher and moved up the ranks to principal of New Garden. In 1885, Hobbs began preparing students for college level course work. In 1888, Hobbs became president of the renamed Guilford College. On August 15, 1888, Guilford College opened its doors to 191 students, with 69 in college and the others taking preparatory classes. The preparatory school continued until 1924.

The first college faculty mirrored New Garden's first faculty with five women and four men. But the number of women students troubled Hobbs, since only 62 were enrolled. In his first report Hobbs noted, "The girls should have advantages equal in every respect to those offered to boys." To accomplish this he requested an art department to be located in the new science building and a women's gymnasium to be built. Today, 52 percent of the college's students are women.

Under Hobbs' guidance, the faculty offered students three four-year degree tracks: classical, scientific, and Latin-scientific. In the scientific degree program, the language requirement of Greek and Latin gave way to German, providing the first opportunity to a student to be educated without being drilled in classical languages. There also was a three-year teacher's course and students could spend a year at the college learning a vocation, such as accounting or telegraphy.

In 1910, the curriculum was changed to allow students to have majors, minors, and electives. This allowed students to pursue their interests and was a departure from the traditional classical study and rote memorization.

While the curriculum underwent changes under Hobbs, the grounds also were being transformed. During his 27-year tenure as president, seven buildings were built. The first was the YMCA, constructed in 1891 where Dana Auditorium now stands. Memorial Hall, King Hall III, the Library, and New Garden Hall were others.

Guilford College's most famous graduate, conservationist T. Gilbert Pearson, who became president of the National Audubon Society, traded his egg and stuffed bird collection for tuition to the school in 1892. That collection became part of the school's natural history collection. While in school, Pearson edited the *Guilford Collegian* and founded the Athletic Association. From 1899–1901 he taught biology at the school, but left when he couldn't negotiate a higher salary. In 1904, he was named secretary of the Audubon Society.

The construction of the Hege Library in 1909–10 was among the most important changes to the campus. An original Carnegie library, with money donated by Andrew Carnegie, it is one of the few Carnegie structures still in

use as a library. Its most recent expansion in 1989 doubled the library's size to more than 70,000 square feet. The library contains more than 220,000 items from books, videos, CD-ROMs, and journals.

The Friends Historical Collection, which is housed in the Hege Library, is the center for the study of Quaker history in the southeast United States. It is the second largest in the United States, below Philadelphia. Established in 1937, the collection includes the written records of Carolina Friends, printed and microfilmed copies of other Friends records, personal and family papers, printed materials by and about Friends worldwide, and sources for the study of Quaker family history. There are articles of clothing from Nathan Hunt, founder of New Garden Boarding School.

After Hobbs retired, Thomas Newlin assumed the reins of the school from 1915 to 1917. His tenure was clouded by troubles with the school's board of trustees and the students. He inherited a school in financial disarray and had eight faculty members leave. He tried to leave after a year and was fired the following year. His name was not mentioned often on campus and his portrait was not hung with the other presidents in the library until 1982.

In 1918, Raymond Binford took over Guilford College, as many people questioned whether the college should be closed in favor of the preparatory school. Binford had taught at the school from 1900–14, so he was familiar with the campus. However, he did not realize the debt the college had incurred. Among his major accomplishments was setting up an endowment drive that helped the school survive financially and put to rest talks of closing the school. Archdale was renovated and a laundry and heating plant were built in 1927.

Also, Binford implemented the Freshman Week, where freshmen came to school earlier than returning students to get acclimated to campus. But his most important contribution was the revision of the core curriculum. Under his plan, students took courses (math, English, science, and foreign languages) and cultural classes (art appreciation, philosophy, and religion). While some faculty resisted the change, Binford was complimented by administrators from other schools. Guilford became one of the first North Carolina colleges to implement an honor system in 1931.

A Quaker practice, the art of discussion is employed by all the large decision-making bodies on campus—administrative and faculty committees as well as the student senate. "What you see here that you don't see at other places . . . we don't vote," Guilford provost Dan Poteet explained. "Instead, all different views are listened to with equal respect and decisions are reached by 'sense of the meeting.' The process is one of stating issues and asking people to respond, keep responding, keep responding, until there is a sense that everyone addressing the issue agrees on how to approach [it]—or perhaps agrees that enough other people agree so that they might step aside."



By the time of Guilford's centennial celebration, Binford had been replaced as president because of failing health by Clyde Milner, the dean of the college. The school was reaching record enrollment, with many local students attending school while living at home. Known as a brilliant speaker, formal engagements became commonplace at Guilford, including a reception at the president's house to begin each school year. This was far different from the school's humble beginnings when dressing up was frowned upon.

On May 24, 1937, Guilford College celebrated its 100-year anniversary. Two thousand people were on hand to hear Arthur Morgan, chairman of the Tennessee Valley Authority, speak and 55 members of the centenary class received degrees.

Later in Milner's tenure, the school would once again show its strong belief in Quaker pacifism. The trustees did not allow the college facilities to be used by the military during World War II, and nine Japanese Americans were admitted as transfer students, most from the West Coast. Three of the students became mainstays on Guilford's basketball team, with Edward Hirabayashi being named all-conference.

During the war, enrollment dropped by half and the graduation numbers reached a low of 20 in 1944. When the war ended, Guilford faced a new problem—it was deluged by college applicants. Within two years, enrollment reached 600 as students took advantage of the G.I. Bill. This meant crowding in the aging facilities, which could not be repaired during the war. Those problems began to ease as the college-fund drive raised money that was used to build a dining hall and new dorms.

In 1953, the college assumed control of Greensboro's Evening College. Even before that, the Center for Continuing Education was established in 1947. It was the first adult education program in the southeast to offer fully accredited academic opportunities. Today, non-credit classes are offered, as well as six degree programs that can be completed entirely through evening classes, which 450 adult students use.

In 1965, 31 years after beginning as president, Milner stepped down to be succeeded by Lyndon Hobbs' grandson, Grimsley Hobbs. During his presidency, unrest was common with the Vietnam War protest and the college moving away from its role of "in loco parentis." As students began holding keg parties in dorms and Bryan Hall was turned into the first co-ed dorm, some alumni and parents questioned the school's Quaker affiliation. Hobbs was able to overcome such problems and implemented

the fourth major change in the school's history, allowing non-Quakers to serve on the board of trustees.

Athletics, always popular at Guilford College, received accolades as well. The men's basketball team won the NAIA national championship in 1973, as did the women's tennis team in 1981. The golf team won the national championship in 1989, finishing second in the three previous years. Among the players on the 1973 championship team were NBA stars M.L. Carr and World B. Free.

Athletics were important, but the athletes were students as well, Carr said when he set up a scholarship in 1986. "When I look back at where I've been and where I am now, I realize how fortunate I was to have people around me at Guilford College who looked beyond M.L. Carr the basketball player and showed an interest in me as a person."

In 1981, William Rogers began his 15-year tenure as Guilford president. A tenuous relationship with Quakers over changes in Hobbs' administration were eased with the formation of the Friends Center in 1982. It was set up to have Quaker ministers steer Quaker youth to the school, if interested. Also, a new college logo was created in 1987 for the 150th anniversary. It was designed by Rogers and features a large black oak that stands adjacent to New Garden Hall. The tree is registered as the largest black oak in North Carolina and is more than 200 years old.

Donald W. McNemar, the former headmaster of Phillips Academy in Andover, MA, became the seventh president of Guilford College on June 1, 1996.

"Guilford is a remarkable institution. The college's strong academic program, inclusive environment, and commitment to service learning are very special educational assets," said McNemar. "It is a distinctive educational community based on the Quaker principles of respect for the individual and collaborative learning."

**Further Reading:** Alexander Stoesen's *Guilford College: On the Strength of 150 Years* (Greensboro, North Carolina: Board of Trustees, Guilford College, 1987) is a detailed pictorial history of Guilford College until the 1980s. Dorothy Lloyd Gilbert's *Guilford: A Quaker College* (Greensboro, North Carolina: Guilford College, 1937) is an extensive history of the school's first 100 years.

—J. Cameron Tew

# HARVARD UNIVERSITY

## (Cambridge, Massachusetts, U.S.A.)

<b>Location:</b>	In the city of Cambridge, Massachusetts, across the Charles River from Boston.
<b>Description:</b>	The oldest university in the United States, a private institution with nearly 21,000 students (including both undergraduate and graduate students).
<b>Information:</b>	Harvard Information Center Holyoke Center 1350 Massachusetts Avenue Cambridge, MA 02138 U.S.A. (617) 495-1573
<b>Visiting:</b>	For information about guided tours, which leave from Holyoke Center, telephone the number above.

**H**arvard University, established more than 150 years before the United States Constitution was written, was founded on the model of traditional European universities, but it has pioneered several distinctive features of American higher education during its centuries of growth and change. It is now one of the wealthiest and most famous universities in the world, yet its main buildings are still where it all began, in Harvard Yard on Harvard Square.

The university originated as a public foundation owned and supervised by the Great and General Court, the government of the English colony of Massachusetts Bay, which decided in October 1636 to spend £400 on a college for the advanced training of young men, especially for the ministry of the colony's official Congregational Church. Newtowne, the colony's capital until the establishment of Boston in 1630, was selected as the location for the college, which was to be administered by a board of overseers, half of them church ministers and the other half lay magistrates. The overseers bought the house and one-acre cow yard which formed the nucleus of the modern Harvard Yard; they also appointed the first master, Nathaniel Eaton.

By 1638, when the college admitted its first students, Newtowne had been renamed Cambridge, for the English university of which Eaton was an alumnus, and in 1639 the college itself was named in honor of Eaton's friend John Harvard. A graduate of Cambridge, Harvard had come to Massachusetts as a Congregational minister but

had died in September 1638, leaving half his fortune and a library of 400 books to the new college.

Eaton did not remain in Cambridge long. He was alleged to have beaten an assistant master with a cudgel, and there had been complaints that his wife, who was in charge of the kitchens, had not provided enough beef for the students. After the couple were dismissed in 1640, the college stood empty for one year but was revived by Henry Dunster, the first person to be appointed president; he organized the teaching of liberal arts, philosophy, and the "learned tongues" (Latin and ancient Greek). In 1650 his efforts were recognized with the General Court's granting of the charter, still the basis of Harvard's administrative arrangements. It created a corporation, composed of the president and the teaching staff, under the Court-appointed overseers.

By 1690 Harvard was admitting around 22 students a year. Its president at that time, the influential Boston theologian Increase Mather, sought to revise the charter so that the corporation would have a majority of church ministers to keep a close eye on what was taught, but both the Governor's Council in Boston and the King's Council in London rejected his proposal as an intrusion on their powers. Indeed, the King's Council went further, expressly forbidding Mather to require that the teaching members of the corporation should all be members of the Congregational Church. Mather, overruled and outvoted, left Harvard in 1701, while many of the more conservative overseers and teachers who had supported his plans departed to New Haven in Connecticut, where they founded Yale University to be a bastion of orthodoxy against the dangerous toleration practiced at Harvard.

In 1708 Harvard confirmed the worst fears of such conservatives by choosing as its president John Leverett, who was neither a minister nor even a strict Congregationalist. However, he was by no means a radical innovator. Examinations continued to consist of a series of oral tests and a Latin essay, on the traditional western European model, but he did appoint an instructor in Hebrew, and he gave permission for private lessons to be offered in French. He also presided over a notable expansion of the college beyond its original three buildings: Massachusetts Hall, the oldest structure now standing in Harvard Yard, was opened in 1720.

By that year Harvard had around 120 students, who had acquired a reputation for swearing, rioting, and gambling, and thus gained the college the nickname "godless Harvard." When the religious revival known as the Great Awakening erupted across New England, the college became an obvious target for reproof by such ministers as



*Harvard University*



George Whitefield, who came to Cambridge to demand reforms in 1740. However, the college authorities refused to impose religious oaths on their students (such as those already in effect at Yale), permitted some of their staff to publish pamphlets answering Whitefield's accusations of backsliding, and proclaimed their uprightness by building Holden Chapel, opened in 1744, inside the Yard. Conservative Congregationalists remained unconvinced at first, but eventually Whitefield himself was sufficiently reassured to contribute money and books to the college library, given its own new building after Old Harvard Hall, which had contained a previous library as well as lecture rooms, burned down in 1765. The rapid recreation of the library, along with the building of Hollis Hall in 1763, and of ■ new Harvard Hall in 1766, were signs of the college's steady expansion.

In 1771 63 students were graduated from Harvard, its largest class, just as Massachusetts was beginning to enter upon its leading role in the American Revolution. Between 1770 and 1773 the General Court met in the college buildings rather than in Boston, which was under the control of British soldiers, and in 1774 the revolutionary provincial congress met in the Meeting House on Watch Hill inside Harvard Yard to create a new government in place of King George III's officials. In the following year George Washington took command of the Continental Army somewhere in Cambridge, although opinions differ as to whether the event took place on the town's common or inside Wadsworth House, which was then the home of the president of Harvard. Because of these and related disruptions, the college's commencement ceremonies were suspended from 1774 to 1781, and for one academic year, 1775–76, its classes were held in Concord, Massachusetts.

In 1779 the Watch Hill Meeting House was the location for the convention that wrote the constitution of the commonwealth of Massachusetts (the oldest constitution still in force in the United States) on the basis of ■ draft text by a Harvard graduate, John Adams. This document, which went into effect in 1780, made Harvard into a university and established a new and much larger board of overseers, composed of the governor, lieutenant governor, council, and senate of Massachusetts, and the ministers of six Congregational churches in and near Cambridge. In 1781 the new board established the Harvard Medical Institution, the first alternative in New England to traditional medical apprenticeships and only the third medical school in the United States. It was moved in 1810 to Boston, where it has since become the famous Harvard Medical School. This new departure into vocational education can be seen as the first of the many changes which would transform Harvard into an institution independent of state and church alike, devoting its enormous intellectual and financial resources to teaching and research in a variety of subjects beyond the imagination of its founders, and continuously evolving to meet the challenges of industrialization and urbanization.

The elimination of the Congregational influence on the university proceeded in stages over almost 50 years. Between 1804 and 1806 both the presidency of Harvard and the professorship of divinity were given to Unitarians, the first non-Congregationalists to hold either post. The Congregational Church responded by creating its own seminary at Andover, while many puritan families began to send their sons to other colleges, leaving the Harvard Divinity School, founded in 1819, to be dominated by Unitarian teachers for generations. The rule that the ministers on the board of overseers had to be Congregationalists was at last abolished in 1843, and the ministers' seats were removed altogether in 1851. Even after that reform, however, attendance at morning prayers remained compulsory for all students.

Independence from the state of Massachusetts took a little longer to achieve as Harvard was cut off from public funds. Harvard's annual tuition fees had risen steadily during the early nineteenth century—for example, from \$20 in 1807 to \$55 in 1825—and it had become probably the most expensive college in the United States, at least for those who could not win any of the several scholarships. The numbers of undergraduates steadily increased—necessitating the building of three new halls: Stoughton in 1804, Holworthy in 1812, and University in 1815—but political resentment of the university's wealth and prestige also increased. In 1823 the Jeffersonian Republicans took control of the state from the Federalists and abolished the state grants to Harvard, which had risen to \$10,000 each year. Thus the university was forced into a position of financial self-reliance, which has continued since, but Massachusetts officials dominated the board of overseers until 1851, when their numbers were cut down to five, the ministers (as has been mentioned) were removed, 30 seats were opened to election for six-year terms by the state's house and senate, and the university's president and treasurer also became ex-officio members of the board. In 1865 the five state officials were removed, and the right to choose the 30 elected overseers was transferred to Harvard alumni, meeting in Cambridge on commencement day. The university created by the colony of Massachusetts for the training of ministers became, and has remained, a private and secular institution.

These administrative changes were merely the background to the substantial reforms of Harvard's academic activities, which have long been associated, perhaps a little unfairly to others involved in the changes, with Charles William Eliot, president of the university from 1869 to 1909. New subjects had already been added to the curriculum before his appointment, with the creation, for example, of professorships in law in 1815, in French and Spanish in 1819, and in the sciences, gathered within the Lawrence Scientific School in 1847. Eliot himself had taught in this school for 15 years, helping to improve its status by taking part in its conversion from ■ three-year to a four-year program of studies and in the raising of its at

first relatively low standards for admission. As president, however, he saw to an acceleration of the rate of change, to a large extent under the influence of the innovations already taking place in many universities in Germany, a country Eliot knew well and admired. Thus in 1871 Harvard appointed the first professor of political economy in the United States; in 1872 it established a pioneering Graduate School of Arts and Sciences; in 1879 it set up an Annex for women students, which was to become Radcliffe College in 1893; in 1886 it became the first American college to abolish compulsory chapel; and in 1890 it brought all the undergraduate courses in the Yard under a single Faculty of Arts and Sciences.

The purpose of this faculty was to facilitate the elective system, which is probably Eliot's, and Harvard's, greatest and most distinctive contribution to the pattern of higher education in the United States. Undergraduates had been permitted a steadily greater degree of choice among the subjects they would study until 1886, when the only limits left in place, apart from the practical matter of avoiding clashing schedules, were that courses had to be "liberal" (nonvocational) and that introductory courses were to be taken before advanced ones. By 1904 every large college in the country had introduced at least some elements of the elective system. One side effect of the system, bitterly resented by Eliot's critics, was that the studies in classical Latin and Greek, which had been central to the European university tradition ever since the Renaissance, and therefore to its offshoots in former colonies, began a decisive decline in status. Eliot's last great innovation was the creation of the Harvard Business School in 1908.

There is a certain irony in the fact that this overhaul of the university's work took place during the same period that saw a revival at Harvard and elsewhere of medieval architectural styles. The new buildings put up during Eliot's presidency included the enormous neo-Gothic Memorial Hall, opened in 1878, on a site to the north of the Yard, to honor Harvard graduates killed in the Civil War and two Romanesque halls (Austin and Sever) designed by Henry Hobson Richardson.

Eliot's successor, Abbot Lawrence Lowell, left his own mark on the university and on higher education across North America. In 1914 he revised the elective system by introducing the distinction between majors and minors, which has since become standard in universities both in the United States and in Canada, and which has also begun to feature in the curricula of European universities in recent years. But his stance on academic freedom was perhaps even more crucial for the future of higher education. Even when the United States was at war with Germany in 1917–18, Lowell refused a gift of \$10 million to Harvard because its donor wanted the gift to be conditional on the dismissal of Hugo Munsterberg, a professor of philosophy who publicly supported Germany. This was a courageous stand, even for a university presi-

dent who was better placed to resist such pressures than his colleagues in poorer colleges.

Nevertheless donations kept coming. A Harvard graduate who drowned during the sinking of the *Titanic* in 1912 was commemorated the following year with the opening of the Harry Elkins Widener Library, which is a component of one of the largest university library system in the world; the Fogg Art Museum, founded in 1895, was able to move into a larger building on Quincy Street in 1927; Edward S. Harkness funded the construction of new undergraduate accommodations between the Yard and the Charles River starting in 1928; and the Memorial Church, which now honors Harvard alumni killed in the two World Wars, was opened in 1931. When he retired two years later, Lowell looked back on a presidency which had been less radical than Eliot's but which had significantly expanded Harvard's resources and consolidated its reputation for independence.

The next president, James Conant, was another innovator. During his first six years he and his colleagues abolished class attendance records and the traditional rank list and introduced national scholarships in order to broaden Harvard's population. After spending much of World War II supervising research on radar, chemical weapons, and the atomic bomb for the federal government, Conant returned to Cambridge. Back at Harvard, he established general education courses for undergraduates and committed the university to its long-standing policy of accepting federal government research contracts only if their content and results were nonclassified.

However, under Conant's successor Nathan Pusey, president from 1952 to 1970, such contracts became a major source of funding for Harvard, as for many other American universities, especially in the areas of science and engineering. This unprecedented involvement, however indirect, in government policies was to be one factor in the wave of protests which swept across American campuses during the years of the Vietnam War. In his January 1969 annual report, Pusey mentioned that Harvard had been free of the sort of major protests that had erupted at other schools. "Fortunately," he wrote, "difficulties of the unsettling kind now being experienced on many college campuses have remained relatively minor here." Such complacency was shattered in April of that year when 300 students seized University Hall, Harvard's main administration building and remained there for 17 hours. Nine university deans were ejected from their offices. In what proved an extremely controversial decision, Pusey summoned the police; 400 state and local policemen cleared the students from the building. Pusey retired as president in 1970.

One result of the protesters' demands was the hiring of Derrick A. Bell Jr., the first black professor at Harvard Law School, in 1969. In 1990 Bell requested an unpaid leave of absence until the school appointed a woman of color to its tenured faculty (the appointment was not



made, and after his two-year leave of absence expired, Bell was no longer on the faculty). The law faculty again made history in 1973 when Professor Archibald Cox was appointed special prosecutor in the Watergate case. Cox was fired by President Nixon on October 20; even though the firing was ruled illegal, Cox did not seek to regain his position and returned to the Harvard faculty.

By 1971, when Derek Bok became president, Harvard was facing its first serious financial crisis, since spending on energy and other supplies was rising rapidly just as federal funds were dwindling, from 40 percent of university income in 1967 to 25 percent in 1974. Bok presided over financial retrenchment and also over another revision of the curriculum, the introduction in 1978 of compulsory "core" courses for all undergraduates. At Harvard, as at other universities, these courses have been the focus of debate, both about the choice of core subjects and about the view of civilization that the choice may (or may not) imply, ever since. Bok's successor, Neil Rudenstine, presided over the largest fundraising effort in the history of higher education. In 1994, the university announced its intention to raise \$2 billion by mid-1999.

Harvard University marked the 350th anniversary of its foundation in 1986. A single house and cow yard in a small colonial town have given place to a sprawling range of buildings; a publicly owned seminary training ministers for a small area of the eastern coast of North America has given place to a self-governing university employing and teaching people from all over the world; and, through some, at least, of its alumni and its teachers it has already had a considerable indirect influence on both the public life and the culture of the United States in particular. In recent times, for example, Henry Kissinger, Secretary of State to President Richard M. Nixon, and John Kenneth Galbraith, the economist who served as ambassador to India under President Kennedy, have been perhaps the

most noted among the many members of the Harvard faculty who have contributed to public policymaking. Six U.S. Presidents—John Adams, John Quincy Adams, Rutherford B. Hayes, Theodore Roosevelt, Franklin D. Roosevelt, and John F. Kennedy—studied at Harvard, as did many other leading figures in government, business, and science, while those of its alumni who have contributed to American literature include the Transcendentalists Ralph Waldo Emerson and Henry David Thoreau; the novelist Henry James and his brother William, a pioneer of experimental psychology who went on to teach at the university; the poets T.S. Eliot, e.e. cummings, Robert Frost, and Robert Lowell; and such modern novelists as John Dos Passos and Norman Mailer. Harvard has produced more than 30 Nobel laureates, from T.W. Richards (chemistry) in 1914 to Seamus Heaney (literature) in 1995. Probably the best known is James D. Watson, who won the prize for medicine or physiology in 1962 for describing the structure of DNA.

Harvard continues to try to balance tradition with innovation, the heritage of successive generations with the needs and interests of the contemporary United States and the changing world of which it is a part.

**Further Reading:** Samuel Eliot Morison's *Three Centuries of Harvard, 1636–1936* (Cambridge, Massachusetts: Harvard University Press, 1936) is still well worth seeking out, for it is a fascinating narrative which blends local detail with attention to broad social change. The following 50 years are well-surveyed in Richard Norton Smith's *The Harvard Century: The Making of a University to a Nation* (New York: Simon and Schuster, 1986).

—Patrick Heenan



# HEBREW UNIVERSITY

## (Jerusalem, Israel)

<b>Location:</b>	Mount Scopus in Jerusalem.
<b>Description:</b>	Private multi-disciplinary university enrolling approximately 22,00 students in undergraduate, graduate, and professional schools.
<b>Information:</b>	Hebrew University Office of Academic Affairs Mount Scopus Jerusalem, Israel

The idea of a Jewish university in Palestine had animated Jewish thinker and leaders for centuries. Near the end of the Middle Ages the Jewish communities in Sicily (1466) and Mantua, Italy (1564) asked the political authorities for permission to establish universities only for Jews. Apparently unsatisfied with the traditional religious education offered in the yeshiva (i.e., a school to train rabbis, organized around the study of the *Talmud*) and excluded from attending Christian universities, these communities hoped to offer Jewish students the same opportunities to study secular subjects such as medicine and science that were available to Christian students. Growing intolerance of Jews by the Roman Catholic Church doomed both efforts.

In the nineteenth century, European universities opened their doors to Jewish students; however the number admitted were kept in proportion to the number of Jews in a given country's total population. Demand far exceeded opportunity, and with the rise of Jewish Nationalism or Zionism in the late 1800s, the idea of establishing a university for Jews in Palestine was reborn. The call for a secular, multi-disciplinary institution of higher education was issued in 1882 by a German professor of mathematics, Herman Shapira. His plan called for a university with three faculties: theology, theoretical sciences (classical liberal arts and sciences), and practical sciences (engineering, agriculture, chemistry). He presented his ideas at Zionist conferences in 1884 and 1897 but both the Zionist movement and the Jewish public believed the idea of a Jewish university to be without practical value for that time.

Shapira inspired a generation of young scholars and Zionists who were led by Martin Buber, Chaim Weizmann, and Berthold Feiwel. In 1901 they urged participants at the Fifth Zionist Congress to open a Hebrew University in Palestine, and in 1902 they set forth their proposal in *Eine Jüdische Hochschule* (A Jewish University). In this pamphlet, known as the founding docu-

ment of Hebrew University, the three idealists argued that such a university was integral to establishing a homeland in Palestine because it would, "promote the revival of the national language, become the focus of Jewish literary, artistic, and scientific work, . . . and become the cultural center" of Judaism. Moreover it would keep Palestinian Jews from going abroad for their education and attract European students who were denied admission to continental schools.

In 1913 Weizmann and his allies won support for ideas at the Eleventh Zionist Congress and a committee, led by Weizmann, began to develop concrete plans for a Jewish university in Jerusalem. Key members of the committee included Baron Edmund de Rothschild, a major financial backer of the project, Nobel laureate Paul Ehrlich, and Dr. Judah Magens. World War I interrupted the work of the planners. However, the work was resumed in 1917 when the British occupied Palestine and issued the Balfour Declaration which pledged official support of a Jewish homeland in the Middle East. In June 1918, even as the war continued, 12 foundation stones, representing the 12 tribes of Israel, were laid on the summit of Mount Scopus. It would take seven years to raise funds, hire faculty, design curriculum, and erect buildings so that the new school could operate. On April 1, 1925, it officially opened.

Hebrew University's character and its course of development were set during the struggle to establish the school and keep it functioning during the first half of the twentieth century. Bitter in-fighting over administrative and academic control of the university as well as the changes in Middle Eastern politics caused by World War II marked the early history of this first Jewish institution of higher education. The new university was at the center of conflict between Zionists and non-Zionists, intellectuals and colonists, and Arabs and Jews. According to Arthur A. Goren, a professor of Jewish history, the founding of the university was the product of competing intellectual and political ideologies:

What should be the character of the university—a great public institution, academic haven for victims of discrimination and instrument of nation-building? Or should it be an elitist institution, above Zionist politics, a lodestar for the far-flung Jewish world whose scientists would take their place among the honored members of the international community of scholars? Finally, what balance should be struck between the fervor for Jewish cultural renewal and the pursuit of science.



*Hebrew University*

The main conflict of the early years centered on two different conceptions of the university's mission and how it should be governed. From the earliest discussion in the 1910s, champions of the university disagreed about its role and its work. On the one side were European Zionists and intellectuals who hoped to create a top-rated research university with the sciences and Judaic studies as its cornerstones. On the other side were those who hoped the university would serve both as a refuge for scholars displaced or excluded by European anti-Semitism and as a comprehensive teaching university that would train new generations of Palestinian Jews.

The latter group, based in Palestine, was led by Judah Magnes, first chancellor of Hebrew University and fellow Zionist, Vladimir Jabotinsky. They argued that the school should be a home for students denied the opportunity for advanced education in anti-Semitic Europe. It should be a center of undergraduate and professional training in the humanities and sciences that would anchor a small but

growing population of Jews in the Middle East, thus furthering the creation of a Jewish homeland in Eretz Israel. Magnes believed that the study of Judaism—its history, language, religious texts, archeology—should be at the academic heart of the proposed school. He was supported by historian David Yellin, Jerusalem-born educator Ahad Ha'am, and the nationalist poet, Chayim Nachman Bialik. Moreover, this faction hoped to improve Arabic-Jewish relations by establishing an academic center for the study of Arabic and Islamic social, economic, and cultural life. Not only would this build bridges of reconciliation between the two peoples but it would help Jewish students better understand their neighbors.

The competing faction in the creation of Hebrew University offered a different vision for the institution. This group represented European Zionism and intellectuals who adhered to the research ethic of continental higher education. It was led by Chaim Weizmann, president of the World Zionist Organization. He elicited the



support of European scholars such as Albert Einstein and Paul Erhlich, and philanthropists such as Rothschild. Einstein and Weizmann believed that only a research university would attract the best young minds and faculty away from European and American schools to Palestine. In particular, Weizmann first wanted to establish research centers in the biological and chemical sciences that would anchor a strong medical school. Rothschild gave his financial support on the condition that the school be organized around a cluster of research centers, much like Pasteur Institute. If successful, Hebrew University would become internationally respected and the center of Jewish culture and thought. In this respect the two men opposed the Magnes goal of creating a comprehensive teaching university, because they feared that such a body would diminish the ability of its faculty to conduct high quality research, and result in a third-rate institution or in Einstein's words, a *Baueruniversitat* (a peasant's university).

The struggle over the definition and curricular direction of the university yielded compromises. Weizmann successfully raised funds and hired faculty to staff the chemistry and microbiology institutes in 1923 and Magnes did the same for the Institute of Jewish Studies in 1925. The university opened with these three research centers but no degree programs. Even so, voices were calling for undergraduate and advanced degree programs. The *Yishunov* (the Jewish community in Palestine) was especially loud in asking for undergraduate instruction (in order to keep local students from going abroad for university training), and student interest surpassed the founders' expectations. During the 1925–26 school year, a committee under the guidance of professor Selig Brodetsky was charged with charting a new path that would allow for more teaching without sacrificing research. The committee recommended that regular instruction be introduced at the master's and doctoral levels in 1927 for the humanities and in 1931 for the sciences.

During the late 1920s and 1930s the curriculum and creation of departments tacked between research and teaching interests. The Weizmann faction established the research-oriented departments of natural history and hygiene (including bacteriology) in 1926. The Magnes party created the department of archeology in 1926 and a humanities faculty (history, classical and modern languages, and philosophy) in 1928. Physics and biological science and cancer research followed in the early 1930s, as did education. By 1940 there were 1,000 undergraduates who were pursuing advanced degrees (however, no undergraduate degrees were awarded until after 1949), and more generally, Hebrew University was being transformed into a comprehensive university that trained undergraduates in liberal arts and professional programs.

One of the loudest critics of the "pure research" ideal was the Palestinian Zionist, Berl Katznelson. He rejected the apolitical position of the university; its failure to pro-

vide leadership in developing Jewish culture and meeting the needs of the community; and its dismissal of the *Yishunov* as a partner in determining the school's research and pedagogical priorities. Katznelson urged Weizmann and other university officials to make the school more responsive to the local population and situation. He lobbied for a school of education and a school of agriculture in the 1930s. He was a vocal advocate of establishing centers to study Arabic societies and urged the creation of a social science faculty to train prospective civil servants for the new state. After World War II, Katznelson pushed the university to rebuild its medical school and begin training a new generation of physicians and medical researchers to replace the thousands who had been lost in the Holocaust. Although his concrete plans were often put aside or reworked by university officials, his goal of transforming Hebrew University into an institution that would serve the interests and needs of the Israeli state and society was eventually realized during the post-war era.

Curriculum and mission were not the only subjects of dispute among the Weizmann and Magnes factions. The rival groups also disagreed about the school's administrative structure. Sponsors of the research university ideal wanted to control Hebrew University from Europe. Historian David Myers argues that Weizmann and his party looked upon local leadership with "paternalistic skepticism." According to their thinking, the Palestinian group, headed by Magnes, lacked the intellectual training and administrative know-how to effectively run the university. However, the Jewish settlement in Palestine and the Magnes party rejected this position as an attempt to subordinate the university to nationalist politics. In short, the new school was caught up in the larger battle about who should control Palestinian affairs, European-based Zionist executives or a self-governing Jewish community in Palestine. It was initially resolved in 1935 when Magnes was unceremoniously stripped of his powers and "booted upstairs" to occupy the figurehead role of president by a special committee, appointed by the Weizmann-controlled board of governors.

The final resolution of these internal disputes and the growth of the university occurred amid, and partially as a result of, heightened Arab-Jewish conflicts, World War II, and the founding of Israel in 1948. In 1929, when Arabs rioted in Palestine, Magnes broke with other Zionists in his efforts to create peace. He used his office of university chancellor to accomplish this goal. He also engaged in private diplomatic efforts to stop the violence and resolve the ethnic-religious tensions between the two populations. Many viewed him as a traitor to the Zionist cause and as a threat to the freedom and independence of the university, insofar as he had aligned the university with a specific political position. In short, Magnes' pacifism and break with Jewish nationalism subverted his leadership among university supporters and it was probably one of the factors that led to his removal from office.



The rise of National Socialism in Germany in 1933 and World War II created new challenges for Hebrew University. Hitler fired all non-Aryan professors (primarily Jewish) and closed higher education institutions to Jewish students. As Germany was the seat of learning for world Jewry, these actions were viewed with alarm. Magnes and leaders of the school in Jerusalem hoped to make the university a haven for German scholars and students. Moreover, the influx from abroad would bolster the university's faculty and allow administrators to build the curriculum. Unfortunately, the school could not raise the financial resources to hire the majority of the exiled scholars, nor could Weizmann and Magnes persuade more than 20 faculty and 100 students to make Hebrew University their home. England, Turkey, and the United States were the sites commonly chosen by those who made it out of Germany.

The war years actually increased the fortunes of Hebrew University. The Arab revolt that had disrupted Palestine since 1936 abated as both Jews and Arabs served in the British forces. The university became the hub of scientific activity for the Middle Eastern theater. Quartz crystals, necessary for radio transmission, were produced by university technicians. University chemists developed a chemical compound to extinguish fires on airplanes and helped devise techniques to repair radio transmission tubes. Specialists in tropical medicine trained American and Australian medical personnel to diagnose and treat malaria, and they prepared anti-typhus vaccines for the growing number of war refugees and soldiers stationed in the Middle East. Substantial financial gifts during the war allowed the university to expand. The Hassadah hospital and medical school were built north of the original buildings on Mount Scopus. The Institute of Jewish Studies was given funds for a new building and an Institute of Archeology with a museum was built. Finally, an agricultural school and experimental station were established at Rehobot (on the coastal plain of Israel, south of Tel Aviv).

The turmoil and violence that had characterized Arab-Jewish relations prior to the war were renewed in 1946, and the university was literally in the middle of the conflict. Arab attacks on Jewish residents engendered counter-attacks by the secret Jewish army known as the Haganah, for which many students fought. During 1946 and 1947 the British government, which controlled Palestine, and the United Nations studied the geo-political crisis in the Middle East. Britain had allowed the violence to go unchecked during this period, and, once the decision was made to divide Palestine into a Jewish and an Arab state, the rulers of the Mandate were powerless to stop its escalation.

The Mount Scopus campus was located on the outskirts of Jerusalem. On one side was the Judean desert and what would become the Arabic nation of Jordan. On the other was an Arab controlled neighborhood of Jerus-

alem. Not only did the university occupy strategic high ground, but the only road from Jerusalem to the north ran through the campus. Whichever side—Jewish or Arab—controlled Scopus possessed an advantage in the War of Independence. Hebrew University was the scene of protracted fighting from December 1947 (after the Partition Resolution passed on November 29) through June 1948. In January, classes on Mount Scopus were canceled and temporary classrooms were found in the city. Students and staff guarded the university and the hospital, which was still in use. Much of the fighting took place along the road, when convoys from Jerusalem brought supplies and changes of staff for the guards and hospital. Sniper fire, machine guns, and grenades greeted the heavily armored buses but usually inflicted limited damage. On the morning of April 13 the lead vehicles of the convoy were ambushed. Seventy-seven died and 20 were injured. The Mount Scopus campus closed that day. In early summer, Judah Magnes, who was terminally ill, negotiated a settlement whereby Mount Scopus would be neutral territory in the Arab-Israeli battle for Jerusalem. This was Magnes' last act on behalf of the university he had helped to establish.

With the 1949 armistice between Jordan and Israel, the faculty and administrators of Hebrew University began to rebuild. Classes and offices were located in over 40 different buildings in Jerusalem. The exigencies of nation-building took priority in the plans of the university. Israel's leaders called upon the university to provide the professional training and scientific research needed by a modern state. A law school was started to provide the necessary education of lawyers, judges, and clerks for Israel's civil service. Social science programs were added and the education department expanded to meet the need for a new generation of school teachers. The agricultural campus at Rehobot was enlarged in order to help reclaim the semi-arid land within Israel's borders and increase its productivity.

In the early 1950s the board of governors and the faculty decided to build a new campus in the heart of Jerusalem. The makeshift facilities were inadequate for the growing student body and tasks of the university. The Mount Scopus campus was not available. It had been severely damaged during the fighting in 1947 and 1948, and after the partition of Jerusalem, it fell under Arab control. Building began in 1954, and the Givat Ram campus opened in 1956. Jerusalem was reunified following the 1967 war, and the Mount Scopus campus was gradually rebuilt. Givat Ram was the primary campus until 1981 when the Mount Scopus campus was completed.

Hebrew University has become one of the most important universities in Israel and the Middle East. It is a leader in agricultural research and is especially noted for its programs in Middle Eastern and Jewish studies. It has an internationally respected archeology department. A university archeologist, Eliezer Sulemnik, was instrumental

in acquiring the Dead Sea Scrolls and then studying them. Faculty members have surveyed the Temple Mount in Jerusalem and conducted important excavations at Hazor, Masada, Tel Migne, and Jericho. Currently there are approximately 22,000 students studying at Hebrew University, a third in advanced degree programs. The school offers numerous courses of study and degrees ranging from classic liberal arts to medicine, business administration, law, and applied science.

**Further Reading:** Norman Bentwich's *The Hebrew University of Jerusalem, 1918–1960* (London: Weidenfeld and Nicolson, 1961) and Lotta Levonsohn's *Vision and Fulfillment: The First Twenty-Five Years of the Hebrew University, 1925–1950* (New York: Greystone Press, 1950) provide insider (and somewhat partisan) accounts of the early years of

Hebrew University. A more current article by Yaacov Iram fills in details about the changes in curriculum and organization during the pre-independence period ("Curricular and Structural Development at the Hebrew University, 1928–1948," *History of Universities* [1992] XI: 205–41). David Bi-ale's essay, "The Idea of a Jewish University" and Bernard Wasserstein's article, "The Arab-Jewish Dilemma" (both in William M. Brinner and Moses Rischin, editors, *Like All the Nations? The Life and Legacy of Judah L. Magnes* (Albany: State University of New York Press, 1987) offer insights into the role played by Judah Magnes in the founding of the university. The scholarly journal, *Judaism* devoted an issue to the origins of Hebrew University (vol. 45, spring 1996).

—Stephen Ellingson

# HOWARD UNIVERSITY

## (Washington, D.C., U.S.A.)

<b>Location:</b>	In the Shaw neighborhood of northwestern Washington, D.C.
<b>Description:</b>	Howard is a public university that enrolls nearly 6,000 new students each year in its undergraduate, graduate, and professional schools.
<b>Information:</b>	Office Admissions Howard University 2400 Sixth St. N.W. Washington, DC 20059 U.S.A. (202) 806-2755

In November 1866, leaders of the First Congregational Society met in Washington, D.C. to discuss the foundation of a theological seminary intended to train "preachers (colored) with a view to service among freedmen." One of the 11 men present at the group's second meeting was General Oliver O. Howard, a white Civil War hero and Commissioner of the Bureau of Refugees, Freedmen, and Abandoned Lands, more commonly known as the Freedmen's Bureau. Howard's national stature and his enthusiasm for the education of African Americans led to the proposal to name the new institution the "Howard Theological Seminary." Plans quickly evolved for an institution of broader educational purpose, and so the newly elected trustees temporarily changed the name to the "Howard Normal and Theological Institute," and then finally settled on "Howard University" on January 8, 1867.

Howard's charter, a bill passed by Congress on March 2, 1866, makes no mention of the University's special service to African Americans. It calls for only the establishment of "a college for the instruction of youth in the liberal arts and sciences," and Howard's non-exclusive commitment to the education of African Americans has ever since been maintained by historical precedent. Howard's charter makes no mention of gender either, and indeed the university has been coeducational since its inception.

The trustees organized and opened Howard astoundingly quickly. Even before the university's charter was enacted as a congressional bill, General Howard purchased a small plot of land and a building to house the seminary and normal school, using funds allocated to the Freedmen's Bureau. In March 1867, Reverend Charles Boynton was elected president of the university, and together with the trustees, he decided to open Howard on

May 1 of that year. The first students enrolled were four white girls, the daughters of two trustees. Meanwhile, Howard searched for a much larger site on which to build a permanent campus. He selected the 150-acre farm of John Smith in June 1867, and the trustees consummated the purchase within the month.

Approximately 91 acres were resold in order to recoup part of the \$150,000 outlay, and the remainder of the land was reserved for the new campus.

Construction on the new site began promptly. The main building, a dormitory, medical building, and hospital were all in progress by the fall of 1867. The medical department opened in November 1868 with a faculty of two black and three white professors, all well qualified despite their relatively low salaries. The law department opened in January 1869 with a part-time faculty of four. The theological department opened in 1870; agricultural, military, commercial, and music departments soon followed.

President Boynton remained in office only 150 days before he resigned over conflicts with General Howard, who was then elected president himself. For one conflict, Boynton believed that blacks and whites should seek separate identities, and congregate in separate churches, whereas Howard favored amalgamation of the races. More importantly, Boynton was discouraged by Howard's legal problems involving the university. Between 1869 and 1872, Howard delivered nearly \$530,000 to the university from the Freedmen's Bureau, which he headed. A congressional investigation was undertaken while he served as president of the school to determine whether his actions constituted a mismanagement of federal moneys. Although Howard was acquitted in 1871, the controversy was bad for the university. The Freedmen's Bureau closed in 1872, and the university was denied federal funds for seven years following. Howard resigned in 1873 when the War Department opened a second investigation into his activities as a federal employee.

Before leaving office, Howard recommended that the black lawyer John Langston, dean of the law department, serve as president pro tem until he could return, or until a permanent replacement could be found. Despite the university's implicit mission to educate African Americans, there was some controversy surrounding the appointment of an African American to the presidency. Langston was allowed to serve as acting president for a year and a half. However, when the post was offered for permanent appointment following the formal acceptance of Oliver Howard's resignation in 1875, the trustees elected the Reverend George Whipple rather than Langston. Their reasons are not fully known, but it is





*Howard University*

argued that they believed a white president could effectively solicit more funding than a black, which may have been true at the time.

Langston resigned from his position as dean of the law department after he lost the presidential election to Whipple, and the program staggered without him. The department was closed for the 1876–77 academic school year,

and then the executive committee fired all members of the department in 1880. The underqualified Dean Richard Greener, who held the post that Langston had vacated, was dismissed along with his faculty. A new faculty was hired the next fall, and the law department resumed operation that same year. Until 1926, law classes were held in a series of buildings downtown rather than on campus,

and the convenience of the new location drew desperately needed students. Benjamin Leighton was appointed dean of the law department in 1881, and he eventually managed to restore strength and order to the program.

In the five years that followed Whipple's resignation in 1875, four more white men were elected president of Howard: Frederick Fairfield, Edward Smith, William Patton, and Jeremiah Rankin. Despite its lack of singular leadership, the university prospered in many respects during the time of fleeting presidents, and then through the 1910s. Many graduates of Howard's preparatory program were admitted into excellent undergraduate programs at Harvard, Williams, and other elite institutions, and many graduates of Howard's professional schools did exceptionally well in their careers. Robert Terrell and James Cobb, for example, who were graduated from the law program in 1889, together opened one of the first professional offices in downtown Washington that was black owned and operated. The university was growing, too, albeit more slowly than the trustees desired; dentistry, pharmacy, nursing, commercial, and other programs were added. Enrollment in the professional schools rose steadily as well.

Howard contributed substantially to the American effort when World War I erupted, despite the disappointment the university's community felt with Woodrow Wilson's maintenance of segregation in the military, and with his tolerance of segregationist ambitions amongst U.S. congressmen. University faculty and students helped develop and lead the Black Officers Training Camp at Fort Des Moines, Iowa, and approximately 200 of 1,250 candidates at the camp were from Howard. The university also established new programs to train radio operators and other civilian technicians useful to the military. An undetermined number of Howard graduates served and died in France, most of them in the Ninety-Second and Ninety-Third Divisions of the Army.

Following the war, President Stanley Durkee bolstered the university's explicit commitment to the service and education of black Americans. Durkee believed that Howard should devote itself to black causes by doing more than simply educating qualified black students denied their due opportunities at other universities infected with racism. Durkee considered it the responsibility of Howard's medical school to train black doctors to work in poorly served black communities, for example, and he described the law school as "the servant principally of a particular racial group."

Dr. Mordecai Johnson was president of Howard from 1926 until 1960, and he was the first African American to hold the appointment permanently. Johnson and the university benefited enormously from an amendment to Howard's charter, passed by Congress in 1928, on the eve of the Great Depression. The amended charter guaranteed substantial federal funding for the university, excepting its religious programs. Representative Daniel Reed of

Dunkirk, New York, spoke persuasively to Congress of the need and benefit of an institution that would serve and elevate America's black population. Opponents charged either that it was improper to give special economic preferences to blacks which were not afforded whites, or that it was wrong to use federal moneys to fund an institution serving the population of Washington alone. The amendment passed by nearly three votes to one.

President Johnson wisely used the new federal funds to develop Howard's infrastructure, especially where changes were needed for the professional programs to receive accreditation. The law school hired new reputable scholars and opened day classes, and the schools of medicine, dentistry, and pharmacy each paid for several faculty members to study at America's finest institutions in order that they might later return with their acquired knowledge. As a result of these and other actions, all of Howard's professional schools were accredited by the end of Johnson's administration. In addition, the undergraduate colleges were greatly improved by the hiring of new professors, and by the consequent reduction in student-teacher ratio.

The Great Depression temporarily retarded Howard's maturation, for both federal funding and enrollment fell between 1930 and 1932. Several building projects were halted, and teachers' salaries were cut by a total of 15 percent. However, the effects of the Depression were not particularly severe at Howard, on the whole. The Public Works Administration, one of the federal agencies created under the heading of U.S. President Roosevelt's New Deal, allocated more than \$2.25 million to Howard in 1933 for the construction of a chemistry building, utilities plant, library, and classroom building. The next year, teachers' salaries were raised 5 percent, and Johnson secured funds to hire 27 outstanding new scholars to invigorate several departments.

While the university enjoyed its newfound prosperity and stature, Johnson was under attack for his public expression of communistic ideas, and for the supposed mishandling of federal funds. U.S. Representative Alfred Bulwinkle of North Carolina publicly questioned whether the government ought to finance an institution whose president supposedly preferred communism to religion, and Representative Robert Hall of Mississippi called for a congressional investigation to determine whether Johnson was mismanaging federal funds by creating a tense, divided institution. In the fall of 1934, the General Alumni Association took the latter charges seriously enough to call for an independent investigation. Johnson defended himself vigorously against these criticisms, and in most cases he either defeated or made peace with his detractors.

In the years surrounding World War II, Johnson invested heavily in Howard's undergraduate programs, thus marking a change from the university's emphasis on its professional schools. In 1941, a new scholarship pro-



gram was introduced to help qualified undergraduates in financial need, and a new standardized system of testing and evaluation was instituted to draw the best high school students from across the country. The following year, the trustees agreed to reduce course loads for liberal arts teachers, and to better their tenure and retirement programs. Then in 1946, the College of Liberal Arts was subdivided into five semi-autonomous programs, each responsible for establishing examinations, public lectures, and a curriculum more suited to its own discipline.

Several Howard administrators and professors held important positions during World War II. Two of the most important were Dean Hastie of the law school, who was a civilian aide to the Secretary of War, and Dr. Ralph Bunche, who worked for the Office of Strategic Services and the State Department, and then as an advisor to the U.S. delegation that negotiated the establishment of the United Nations. Dr. Bunche won the Nobel Peace Prize in 1950 for his role in bringing about an end to the Arab-Israeli war. In addition, about 300 soldiers trained on Howard's campus, and an indefinite number of Howard students and alumni served in the armed forces during the war.

Howard blossomed in the post-war years. In 1955, the university inaugurated its first doctoral program. Johnson approved stipends of \$1,000 for each of three teaching fellows in the department of chemistry, and in 1958 Howard became the first predominantly black university in the country to award a Ph.D. Two years later, the department of physics introduced a doctoral program, and the dentistry program began planning a graduate program. Enrollment at Howard quickly doubled following the war, reaching more than 6,000 by 1960. The administration responded to the influx of students with an aggressive building program costing \$17 million. Modern facilities were constructed to house the departments of architecture, engineering, fine arts, and biology, and the schools of law, pharmacy, medicine, and dentistry, as well as house the administration.

The medical program was substantially improved following the 1951 publication of an embarrassing article in the *Journal of the American Medical Association* reporting that many graduates of Howard's medical school were failing state boards. Johnson and his administrators implemented a variety of curative measures, including the hiring of new teachers and auxiliary personnel, the increasing of faculty salaries and research funds, the provision of new facilities and equipment, and the fuller integration of the medical school with Freedman's Hospital. When nearly 15 percent of the medical school's graduates taking state board examinations still failed in 1955, school administrators began requiring more and better written work.

In 1955, Johnson reached the age of 65, and thus according to a university policy that he had himself endorsed, he was forced to tender his resignation. How-

ever, the trustees appointed him to another five-year term to be served while they searched for a suitable replacement. His eventual departure was met with anxiety and sorrow, for Johnson had transformed Howard from a small, mediocre institution into a competitive and internationally respected university.

James N. Nabrit Jr. took up the responsibilities of the presidency in September 1960, and was inaugurated on April 26 of the following year. Nabrit was secretary of the university for 17 years prior to his appointment to Howard's top office, but it was his outstanding record as a civil rights leader that earned him national honor and respect. Nabrit was a lawyer who prepared or argued several of the most important civil rights cases in American history, including *Brown v. The Board of Education*. He brought his racial views to bear on his administration, in accordance with his declaration that "since Howard University is bound by its traditional service to the Negro people, it must continue to direct a large part of its efforts toward the training and development of young men and women who have been handicapped by segregation."

Ironically, several influential student groups at Howard doubted Nabrit's devotion to the black community. In 1967, Professor Nathan Hare and a small group of Howard students organized the Black Power Committee (BPC), which "pledged to revolutionize black universities and to defeat the colonialist administrators who rule on behalf of the white power structure, and to create black universities to serve black people." The BPC and other groups began to stage protest and walk-outs regularly on campus to promote their ambitions for the university. In the summer of 1967 and the fall of 1968, Vice President Wormely expelled or suspended more than 90 protesters. New demonstrations were staged to protest those punishments, and from there the situation escalated. In March 1968, approximately 1,500 students occupied the Administration Building for five days, during which they demanded that Wormely and Nabrit resign, that the university reverse Wormely's punishments, and that Howard be more thoroughly devoted to black issues. The administration flatly refused the first two demands, but the crisis ended when ground was given on the third.

Since Nabrit's departure in 1969, the university has delicately balanced its two purposes, to educate American youth and to serve the black community. Dr. James Cheek, who was elected president the year Nabrit resigned, devoted himself to Howard's building program. He oversaw the addition of three new campuses, several buildings, and the addition of several new departments. Enrollment, employment, and the university's budget all rose during Cheek's administration. Upon assuming office in 1989, Dr. Franklyn Jenifer pledged to make Howard a center for research into the issues facing black America. Howard's newest president, Patrick Swygert, spoke to both concerns in his convocation speech, delivered September 29, 1995. "[Howard] University must



continue to be a place where African Americans and others can come to study, free of oppression of any type, stripe or kind. [And] this university must engender and nurture an environment that celebrates African-American culture.”

**Further Reading:** The only monographic history of Howard is *Howard University: The First Hundred Years* by

Rayford W. Logan (New York: New York University, 1969). The narrative is awkward at times, but quite thorough. Internet users can also find a brief, but useful history online at <http://howard.edu>.

—Christopher Hoyt

# HUMBOLDT UNIVERSITY

## (Berlin, Germany)

<b>Location:</b>	In Berlin's historical "Stadt Mitte" (city center), a borough of the former East Berlin sector. The university is located past the Brandenburg Gate on ■ main thoroughfare, <i>Unter den Linden</i> .
<b>Description:</b>	A self-governing trust of the city-state since the 1992 academic reorganization, the university was founded in 1810 (as Friedrich-Wilhelm-Universität) and now enrolls about 24,500 full time students and offers 224 courses of study. Nine percent of the student body comes from abroad.
<b>Information:</b>	Humboldt-Universität zu Berlin Unter den Linden 6 10117 Berlin Germany

The concept of a university for Berlin was first promoted at the end of the eighteenth century. Johann Gottlieb Fichte, progressive (pre-Romantic) scientist and Friedrich Schleiermacher, ■ humanistic theologian, influenced Wilhelm von Humboldt's plans for a "universitas litterarum," a school which would combine teaching and research and provide comprehensive education.

Four traditional faculties—law, medicine, philosophy, and theology—were offered in October 1810 when the university opened under the name of Friedrich-Wilhelm-Universität. Berlin's university was housed in a palace built by Friedrich the Great for his brother, Prince Heinrich, in 1748 in a restrained neoclassical style. The entrance gates facing Unter den Linden are now flanked by statues of educator Wilhelm von Humboldt and his brother Alexander, who explored South America. Wilhelm is in deep thought, holding a book in hand, while Alexander is sitting on a globe with the dedication, "Second Discoverer of Cuba," a gift from the University of Havana. From its foundation to 1948 the University at Berlin was named Friedrich-Wilhelm University and referred to as "Berlin University."

The Charité evolved from the hospital for the plague and contagious diseases that was built in 1710 outside the city walls. It became the university's medical school in 1829. The school of veterinary medicine which had opened in 1790, and the Museum of Natural History were also added to the medical school. Professors and researchers such as Hufeland and Johannes Müller were on the medical faculty.

Under Friedrich II (Friedrich the Great, 1740–86), Prussia became a major power in Europe. This philosopher/warrior king and others, such as Moses Mendelssohn, Gotthold Ephraim Lessing, and Friedrich Nicolai turned the Prussian capital of Berlin into a center of the Enlightenment in Germany. The grand structure which became the university, as well as the State Opera in the Forum Friederianum, the Old Library, and Saint Hedwig's Cathedral were all built along Unter den Linden during Friedrich II's reign. By 1806, Napoléon had defeated Prussia, and the French monarchy occupied Berlin.

Rector, Professor Dr. Kurt Schröder, speaking at Humboldt University's 150th anniversary in 1960 (which was ■ joint celebration for the 250th year anniversary of the Charité) stated, in ■ university Senate declaration, *Humboldt Universität: Gestern-Heute-Morgen*, that the university opened its doors during ■ time of ardent patriotism against foreign rule, during ■ "peoples' movement" which was destined to shake up the bonds of "feudal absolutism" and "bring about the will of the people against the remnant social structure of the middle ages by its striving for social change and scientific progress." Staunchly Communist, the celebrants at Humboldt in 1960 (just one year before the Berlin Wall was erected) expressed pride in the history of "their" university, which claims 27 Nobel Prize winners: among them, Albert Einstein and Max von Laue.

Rebuilt and renamed after the ravages of World War II by the German Democratic Republic (GDR) and the Soviet regime, and overcoming the intellectual decline of the Nazi years, Humboldt University would "once again," Schröder declared, become the great institution of learning set out by its founders, renowned for scientific achievements. Two prominent founders of "scientific Socialism," Karl Marx and Friedrich Engels, had been students at the Berlin University during its first century.

The declaration of the founders stated that the university was to be an "institution for the whole Fatherland, the work of a free and great national spirit . . . a new type of university, in which the unity of research and teaching would be the grounding principle." This university would not be like classical-imperial (*römisch-kaiserlich*) universities of the past, endowed with "privileges," but rather, a university which would give the study of natural science its due allotment and would promote knowledge for the national betterment of the German people, while paying attention to the achievements of other cultures.

Since the storming of the Bastille in Paris, July 14, 1789, the German people had watched the development of personal freedoms, the undercutting of the feudal sys-



*Humboldt University*

tem, and the rise of free enterprise. They were ready to overthrow the double yoke of a foreign ruler (Napoléon) and the “backwardness” of their own feudal system. The professors and students were participants in a movement toward German unity and sympathized with Wartburg student demonstrations in 1817. Wilhelm von Humboldt wrote that one of the first proposals, a “mission,” of the university should be the promotion of a single German language. Philosopher Johann Gottlieb Fichte and others argued that only through “the Volk,” a collective, living, nationalistic force of German-born citizens with its own culture, traditions, and language could unity be achieved. Early professors included Jakob and Wilhelm Grimm, linguistics and literature; George Hegel, philosophy and dialectics; Friedric Karl von Savigny and Eduoard Gans, law; mathematicians Karl Jacobi and Peter Gustav Lejeune-Dirichlet; physicists Heinrich Magnus and Johann Poggendorf; chemist Martin Klaproth; and others in agriculture and forestry science.

In the revolution of 1848, Berlin’s professors and students stood on the side of the people. Despite defeat at the hands of the Prussian monarch, and with the reactionary alliance of the rising bourgeoisie with the junkers (landed aristocracy), the university’s humanistic “people’s movement” was dealt a blow in their ideology about unification.

What the revolutionaries had long struggled for was partially achieved by the founding of the German Empire in 1871. However, “Unity, Justice, and Freedom” was granted by decree of a ruling monarch, the King of Prussia. Prussian King Wilhelm I became Emperor of Germany, not only of the Prussian people. Prussian Prime Minister Otto von Bismarck was his Imperial Chancellor, and Berlin became capital of the Empire.

Humboldt University, however, continued to play an important role in the development of scientific study, especially in the natural sciences. In the second half of the nineteenth century, prominent scientists had high regard for the Berlin university.



Humboldt University was an early leader in the field of chemical research. August Wilhelm Hoffmann, one of its well-known and respected professors, served as rector in 1880–81, aborted a potential crisis by denying the foundation of an anti-Semitic student society proposed by Treitsche and Stöcker. After Hoffmann's death in 1892, Emil Fischer, the Ordinarius of Würzburg was appointed rector. His research into the chemistry of carbohydrates and his discovery of phenylhydroxins led the way in the field of organic chemistry for Germany. Researchers' demands for better facilities led to the building of the largest and most modern institute for chemical research in Germany in 1910 on Hessischen Strasse, replacing the old Institute on Georgenstrasse. Inorganic chemistry also found a respectable niche at Berlin. Progress was made in the fields of radioactive chemistry, biochemistry, and physics. Researchers such as Alfred Stock, Otto Hahn, and Franz Fischer were pioneers in these fields.

Turn-of-the-century Berlin became a cultural mecca, attracting writers and artists, many of whom joined with Edvard Munch and August Strindberg in an artistic alliance in 1898 called the "Berlin Secession," after a scandal caused by a Munch exhibition. Artists such as Käthe Kollwitz depicted the social misery of the lower classes; Expressionists Wassily Kandinsky and Emil Nolde brought Berlin into the avant garde.

The university continued building throughout Germany's political changes. Christopher Isherwood, whose stories about turn-of-the-century Berlin was inspiration for the stage show "Cabaret," wrote that the architecture of the nineteenth century was "so pompous, so very correct." These buildings were restored from their post-war rubble.

During the Weimar Republic (1918–33), state authorities refused to grant professorships in some instances, especially to Jewish academics; there were still elements of Prussian anti-Semitism and social democracy at work. Many conformist professors who were rightists yet against the Weimar Republic, did nothing, although there were incidents of open hostility at some universities (e.g., Heidelberg, Marburg). With the rise of the National Socialist Party, several colleagues and students left Berlin, Lindemann and Franz Simon, who later found success in England, were two of the first to leave.

Jacobus van Hoff in 1901, Emil Fischer in 1902, and Walther Nernst in 1920 were honored with the Nobel Prize. Berlin University during the first two decades of the twentieth century reached its highest success in the field of chemistry. After Fischer's death in 1919, many of his students left the university for appointments at other universities.

The 1920s, characterized by economic crisis and the rising tide of Fascism, brought a decline to Berlin's university, as well as to other academic institutions throughout Germany. Intellectual emigration from Berlin preceded the physical devastation of Humboldt University during World War II.

The National Socialist Party came into power in January 1933. Political suppression followed the burning of the Reichstag building (government offices) in February; by March, hundreds of thousands of brown and black shirted SA and SS troops paraded through Berlin. By the end of the first two months of Hitler's arrival, hundreds of literary and artistic people had left Germany. The Civil Service law of April 7, 1933, forced more than 1,000 scholars from their academic positions as "politically unreliable" or "non-Aryan," although categories were not finally determined until the Nuremberg Laws of 1935. Max von Laue, Nobel-prize-winning physicist at the university, remained in Berlin signing petitions, pleading with Nazi officials, and sending news to "refugee colleagues." He wrote to Einstein in America expressing both joy at the ground-roots support for fleeing intellectuals in England and the USA, and shame and bitterness over the fact that remaining in Berlin meant resistance against academic and political oppression. Those who were left in the universities were mainly conformists and right-wing members of fraternities, or members of the Nazi party who were gaining influence. Hitler found support at all academic levels, making education serve his purpose: highly centralized, anti-intellectual, subservient to war preparations, and vocational. Only racially "acceptable," physically fit youth who were in service to the "Hitler Youth" were admitted to universities after 1933.

Boris Schwarz, a young Jewish violinist in Berlin, who had played chamber music with his father's friend, Albert Einstein, matriculated to Humboldt University in 1933, working toward his doctorate in musicology when, within a year, his German engagements were canceled, radio programs stopped inviting him to play, German students switched to other teachers, and his Jewish students vanished. In March 1936, although his dissertation had been accepted, he was refused admission to the oral examination and could not graduate. He joined Einstein in America.

On May 10, 1933, students burned books by authors who displayed an "un-German spirit." The works of Heine, Marx, Bernstein, Einstein, Freud, Kafka, Remarque, Hesse, and Brecht were among those reviled by student committees (*Asta*) controlled by the Nazis; books were thrown into bonfires at universities of the Third Reich. Humboldt University ultimately became a center for anti-Hitler propaganda; students and professors were imprisoned and executed for their activities. Lilo Herrman, Arvid Harnack, Mildred Harnish, Herbert Baum, Harro Schulze-Boysen, George Groscurth, and Robert Havemann were among the resistance leaders.

When the Soviet sector was established in Berlin in 1945, Berlin's university was in shambles—a university with few walls, fewer books, and educators with Nazi orientation who had to be dismissed. Socialist Realism allowed for the preservation of the national heritage;

Humboldt University was spared reconstruction in the “wedding cake” style of the Russian pseudo-classical, highly decorative style produced by architect Hermann Henselmann. The university was “reconstructed,” however, with Soviet educational methods.

The Soviets set up a German Administration for Education in the summer of 1945, reorganized and renamed the university, and prepared the way for a communistic foundation of education under the 1946 “Law for the Democratization of the German School,” which proposed to make the young “capable of thinking for themselves, acting responsibly, able and willing to serve the community.” The education was to be free of militarist, imperialist or racial ideology, and at the early stages, communist ideology was not thrust forward, but made inroads along the whole system.

Humboldt University was reopened in January 1946, offering courses in seven departments. Conflicts over course structure and politics led to schisms in staff and student body and ultimately led to the dismissal or flight of academics and scholars to the western sectors, particularly after the opening of the Berlin Free University in 1948. The German Administration issued rules severely regulating the admission of students to the university in 1947, prioritizing the children of the urban and rural working class, if they had not been associated with or been members of the Nazi party, and those persecuted by the Nazis. Non-proletarians who had not been Nazis were next, and third on the list were those who had been members of Hitler Youth only. *Vordienstanstalten*, offering matriculation courses to mature students was a benefit for returning ex-political prisoners and servicemen.

“Arbeiter-und-Bauern Fakultäten” (Workers and Peasants Faculties-ABF) were instituted in 1949 for the working class who had not passed entrance exams (abolished by 1963); Marxist version of social science became compulsory in August 1950; and the university was brought under central control of the SED’s Ministry of Higher Education in 1951. Economics and the needs of the party and state were priorities in course planning, and the German two-term academic year was changed to a Soviet ten-month academic year in a decree issued in February 1951.

The 1950s and 1960s were punctuated by a number of repressive and relaxed periods for intellectual freedom in the GDR. Communist playwright Bertolt Brecht returned from exile; Wolf Biermann (*The Glass Harp*), Christa Wolf (*The Divided Sky*), Hermann Kant (*Die Aula*) all had periods of favor with the government and periods of disfavor from 1956 after Khrushchev’s exposé of Stalin until the Hungarian revolution during the late 1950s.

In 1962—a year after the Berlin Wall was erected—until December 1965, another period of relaxation allowed students, teachers, writers, artists, and intellectuals a respite from the censorship fostered by Paul Fröhlich, influential Leipzig district secretary in the 1950s and 1960s.

Robert Havemann, chemistry professor at Humboldt University, an “experienced functionary” according to John Dornberg (*The Other Germany: Europe’s Emerging Nation Behind the Berlin Wall*, Doubleday, 1968), and a member of the Communist Party since 1932, anti-Nazi resistance worker, concentration camp survivor, charter member of the SED, lost his faith in the party when Stalin’s “sins” were exposed by Khrushchev at the XXth Soviet Party Congress. He began “shocking” party members with his lectures at the university based on his doubts, and he became a symbol of the era. His lectures, every Friday, brought students from all over the GDR to Berlin to sit in his overcrowded lecture hall, in the aisles, to hear Havemann say that “Socialism cannot be realized without democracy.” His lectures catalyzed the young East Germans. A mixture of philosophy, physical, bio- and photochemistry, his ideas were heresy to the “ideologues” and functionaries who kept a hard Stalinistic party line.

After riots at rock concerts and long-haired students playing Beatles music caused a stir in the sector, the December 1965 Plenary meeting of the Central Committee found Christa Wolf defending her colleagues who chose to loosen ideological interpretations, an indication of the Cold War thaw to come, although Walter Ulbricht’s party-line leadership was still severe.

In 1965, Beermann, a singer of raucous political songs (like Bob Dylan), was not allowed to perform any longer in the GDR, and self-exiled to Prague; Havemann was fired from his university post, expelled from the Party, and purged from the GDR’s Academy of Science. A new law, “Lex Biermann” was put into effect to prohibit writers from publishing their works in the West before first offering them to East German publishing houses.

The “Third Higher Education Act” in 1968–69 changed the structure of Humboldt University. Traditional faculties were abolished and replaced by sections, having councils on which sat academic staff members, representatives of the Soviet SED, the German FDJ, and industrial or other groups tied to a section. Marxism/Leninism, History, Mathematics, Languages and Literature, Sciences, Chemistry, and Marine Engineering were typical sections. Research was commissioned by industry; sections providing for an economic need got better endowments. The university was still headed by a rector who did not have the power of former German university rectors. There was a “Ministry for Universities and Vocational Colleges” in Berlin which detailed and regulated every aspect of university life, from admittance to stipends, to where and how students spent their summers at work camps.

The unification of Germany in 1990 made Berlin a city with three universities. Humboldt developed a new framework with the help of the Central University Staff and Structural Commission and the Structural Development and Appeals Commission created by Berlin’s legislative assembly. Courses have been redesigned and staff has been subjected to personal and professional evalua-

tion. In July 1991, "Humboldt v. Berlin" was a test case to challenge the "fire and rehire" method used by the Berlin government to boot old Communist Party professors with links to the STASI (State Security apparatus) from their tenured positions. The case failed to overturn the practice.

Humboldt today has 11 faculties and two centrally administered institutions—the Museum of Natural History and the Great Britain Center. It maintains academic respect in scientific research, and covers all fundamental disciplines in mathematics, the natural sciences, agricultural science, the humanities, the social sciences, and medicine. A special research group, the "Quantification and Simulation of Economic Processes;" two special graduate colleges (Mathematics and Biochemistry); an innovative college of theoretical biology; and participa-

tion in international fairs and symposia keep Humboldt University linked to its illustrious past.

**Further Reading:** No English-language histories of Humboldt University exist. John Dornberg's *The Other Germany: Europe's Emerging Nation Behind the Berlin Wall* (Garden City, New York: Doubleday, 1968) begins with a dramatic account of the days preceding the building of the Berlin Wall and reveals insights into the people and politics of the early Soviet city-state of East Berlin. *The GDR: Moscow's German Ally* (London: Allen and Unwin, 1983) by David Childs, gives a comprehensive account of the education system and daily life in the GDR.

—Carol Shilakowsky



# ILLINOIS INSTITUTE OF TECHNOLOGY

## (Chicago, Illinois, U.S.A.)

**Location:** Illinois Institute of Technology is composed of four campuses in and around Chicago, Illinois, a northern midwest state of the United States. IIT's main campus is a 120 acre campus located on Chicago's near South Side at 33rd and State streets. The downtown campus is located at 565 West Adams Street in Chicago's Loop district. The Daniel F. and Ada L. Rice Campus is a 19 acre campus in Wheaton, Illinois, a suburb 25 miles (40 km) west of downtown Chicago. The Moffett Campus is a 5 acre campus located in Bedford Park, Illinois, a suburb 10 miles (16 km) southwest of downtown Chicago.

**Description:** The Illinois Institute of Technology (IIT) is a private, coeducational university offering both undergraduate and graduate degrees. IIT is one of the leading scientific and technical schools in the United States and is particularly noted for its architecture program at both the undergraduate and graduate level. In 1996 the total student enrollment was 6,287.

**Information:** Office of Public Relations  
Illinois Institute of Technology  
3200 South Wabash Avenue  
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(312) 567-3104

**Visiting:** Office of Admission  
Illinois Institute of Technology  
3300 South Federal Street  
Chicago, IL 60616  
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(312) 567-3025 in the U.S.  
outside of Chicago (800) 448-2329

Chicago, Illinois, a city of approximately 3 million people, is located on the southwest shore of Lake Michigan and is the midwest center for transportation, finance, industry, and culture. Chicago, nicknamed "The Windy City" for its bombastic politicians and boastful citizens who wanted to host the 1893 World's Fair, has a colorful reputation based on its history of gangsters, stockyards that were the setting for Upton Sinclair's novel *The Jungle* (so horrifying that it inspired U.S. government regulation of meat processing plants), and one particular cow infamous for starting a devastating fire. By the 1870s Chicago had a population of almost 300,000 people and

had become a center for, among other things, railroads, meatpacking industries, and farm machinery manufacturing. On October 8, 1871, however, the city was ravaged by a fire that began when, legend has it, Mrs. O'Leary's cow kicked over a lantern. Strong winds, dry weather, and wooden construction that dominated the city combined to produce a fire that destroyed roughly 4 square miles (10 sq km) of downtown Chicago, leaving approximately 100,000 people homeless and causing millions of dollars worth of damage. Rebuilding of Chicago began almost immediately, with stricter building codes in place, and, interestingly, out of this devastation came the opportunity for Chicago to be a center for architectural innovation and experimentation.

The Illinois Institute of Technology (IIT) traces its history back to the last decade of the nineteenth century. In 1890 the Armour Institute of Technology was founded in Chicago as a polytechnic school to educate local students and provide skilled workers and leaders for the community. In 1940 the Armour Institute of Technology merged with the Lewis Institute (founded in 1896) to become the Illinois Institute of Technology. The name Illinois Institute of Technology was also formally adopted in 1940. The Institute of Design (founded in 1937 as the New Bauhaus) joined the school in 1949. A fourth merger took place in 1969, when the Chicago-Kent College of Law (originally incorporated as a school in 1888) joined IIT. At the time of Armour Institute of Technology's establishment in 1890, Chicago had recovered from its "great fire" and become home to an architectural renaissance. The work of architects Daniel H. Burnham, John W. Root, Frank Lloyd Wright, Louis Henri Sullivan, and Dankmar Adler transformed the city-scape and became a style known as the first Chicago School of Architecture. The firm of Burnham and Root was noted for its development of skyscrapers, using steel skeletons to support buildings. Burnham emphasized the concept of a beautiful, integrated city in which wide streets, open spaces, and tall buildings worked together to form a balanced whole. Adler and Sullivan also became known for their work with skyscrapers and improvement of technical standards. Coming to the forefront of architectural theory of the time was the idea that the form or design of a building should express or aid its function. By the early twentieth century Chicago had established an international reputation as a city of architectural achievement and possibilities. It was to this city that the world famous German architect Ludwig Mies van der Rohe came in 1938 to teach, design, and create at the Armour Institute of Technology.



*Illinois Institute of Technology*

Mies van der Rohe was born in Aachen, Germany, in 1886. Although he was apprenticed to several architects, he never received any formal architectural education. In the early years of the twentieth century, Mies developed his belief that the actual supports of a building should be emphasized as a main architectural feature. He sought to take technology to its highest degree of development, ultimately transforming elements of industrialization into art. Mies associated with many leading architects of the time, such as Hendrik Petrus Berlage, Walter Gropius, and Le Corbusier. Following World War I, numerous painters, sculptors, and writers sought a universal expression of art; their international aim influenced the direction of architects who also began to create a unifying, international style. This international style was encouraged at the Bauhaus school, where Mies became director in 1930. Here he promoted the ideas of simple, functional design and an appreciation for the brick, steel, and glass building materials themselves. The totalitarian government of Hitler's Nazi Germany, however, soon stifled this period of creativity, and Mies immigrated to the United States in 1937. In 1938 he accepted the position as head of the School of Architecture of the Armour Institute of Technology with the assurance that he could design buildings for the campus as well as teach.

As an instructor, Mies encouraged disciplined learning, teaching students to begin by learning the basics of drawing, then to learn about the qualities and characteristics of building materials, and finally, to learn the principles of construction. The Armour Institute of Technology's original campus, with an area of 7 acres and 5 buildings, was marked for expansion with the merger of Lewis Institute and the formation of the Illinois Institute of Technology in 1940. Mies directed the creation of the new 120 acre campus on the near South Side of Chicago. State Street, a main thoroughfare running north/south through the city, was to divide the campus roughly in half. For Mies it was the opportunity to apply on a large scale his crisp, rectilinear forms, echoing the gridlike pattern of Chicago's streets; to use brick, concrete, and steel structures and walls of glass to blend technology into art; and to create a balance between open, natural spaces and man-made construction. Alumni Memorial Hall (constructed 1945–46) was Mies's first classroom building built on the campus. It lies to the west of State Street and now houses classrooms and labs used for civil and environmental engineering classes. This building established a pattern for other buildings on campus with its use of "module" space. These module spaces were large, open areas that could be used for classrooms,



offices, or labs while retaining a flexibility to accommodate future changes in the school's use of the building. Perlstein Hall, also constructed 1945–46 and situated on the west of State Street, features a small, interior courtyard. The landscaping of the area around the building includes trees native to the midwest and was done by Alfred Caldwell, a student of Mies's, to Mies's designs. This building now houses administrative offices, including the president's office, as well as classrooms and labs. Wishnick Hall (constructed 1945–46) and Siegel Hall (planned in 1946 but not constructed until 1956–57) demonstrate Mies's use of line, rectangular forms, and steel, brick, and glass. Both buildings are now used for classrooms and labs. Wishnick Hall also contains the Center for Excellence in Polymer Science and Engineering.

Lying to the east of State Street is the Robert F. Carr Memorial Chapel of St. Savior. The chapel was constructed from 1949 to 1952 and is unique among Mies's works. It is believed to be the only building Mies created to house religious services. Also to the east of State Street is the Commons (constructed 1952–53). This building is a focal point of student life since it houses the university bookstore, a convenience store, a post office, and an eatery. It is a glass-walled structure in which Mies exposed the actual steel framework. Throughout the 1950s, apartment buildings by Mies were added to the campus. They are collectively called the IIT Apartments and lie to the east of State Street. Carmen Hall (constructed 1953), Bailey Hall (1955), and Cunningham Hall (1955) are all noted for their use of reinforced concrete and glass. In the 1940s and 1950s, Mies also worked on the IITRI Materials Technology Building, which lies to the west of State Street. This building is part of the Illinois Institute of Technology Research Institute and houses the Instrumented Factory of Gears; the Center for Synchrotron Radiation Research and Instrumentation; the Midwest Laser Center; and the Productivity Center. From 1950 to 1956, S.R. Crown Hall was constructed on the campus to the west of State Street. This building is considered one of Mies's masterpieces. The exterior is remarkable for its clean lines, four outside columns, girders, and expanses of glass, while the interior is known for its open, flexible, module space. S.R. Crown Hall now houses IIT's College of Architecture and the Graham Resource Center, the architecture library. In 1958 Mies retired from his position at the Illinois Institute of Technology, leaving it an internationally known showcase for the "Miesian" style.

Other notable buildings on campus include Main Building (constructed 1891–93) and Machinery Hall (constructed 1901), both buildings lie to the west of State Street and were originally part of the Armour Institute of Technology. Also to the west of State Street is IIT Research Institute Tower, which was constructed 1963–64. This 19 story building is the tallest on campus and houses offices for the school's research affiliate, Illinois Institute of Technology Research Institute as well as the

school's Institute of Design. The Paul V. Galvin Library and Hermann Union Building Hall, both to the west of State Street, were completed in 1962. These buildings are visually reminiscent of S.R. Crown Hall. In 1966 an athletic complex, called Keating Sports Center, was added to the east side of campus. This facility contains, among other things, a weight room, tennis courts, and a pool. It is the site for competition of the Illinois Institute of Technology's varsity-level Scarlet Hawks in such sports as women's basketball and men's swimming. Residence halls with cafeterias and computer facilities as well as fraternity houses are among the other buildings that lie to the east of State Street.

The Illinois Institute of Technology runs on a semester calendar, with the regular academic year extending from August to May. In 1996 the student body totaled 6,287, of which 1,959 were undergraduate students; 3,062 graduate students; and 1,266 law students. Approximately 70 percent of the student body is male, 30 percent female. The Illinois Institute of Technology prides itself not only on teaching about technology but also providing access to it. Among the technologies available to students are hard-wire linking from all the residence halls to the campus computer network; 11 wind tunnels for use in basic research; and the William F. Finkl Interactive Instructional Network (IITV) that provides instruction at more than 20 TV receiving sites. This unique distance-learning technology has a live "talk-back" system to provide immediate interaction with the on-campus IIT classrooms. Leon Lederman, a winner of the 1988 Nobel Prize in physics, is accessible to students through his teaching of such classes as freshman physics. Although over half of the freshmen come from Illinois and other areas of the midwest, IIT is currently at work on an international initiative program to attract students from all over the world. A campus radio station, a newspaper, and a yearbook are media resources available for students to run as well as use.

The Illinois Institute of Technology is composed of six different colleges. These colleges are Armour College; College of Architecture; Institute of Design; Institute of Psychology; Chicago-Kent Law College; and Stuart School of Business. Among the bachelor's degrees offered by IIT are chemical engineering, architecture, English, history, mathematics, accounting, psychology, and marketing management. Master's degree programs include architecture, chemical engineering, civil engineering, biology, psychology, management science, and operations research. Doctoral degrees are offered in such areas as electrical engineering, mechanical and aerospace engineering, physics, psychology, and management science. The Chicago-Kent College of Law offers law degrees and a master's in labor law.

The Illinois Institute of Technology's downtown campus houses the Chicago-Kent College of Law and the Stuart School of Business. This 10-story building is equipped with up-to-date technology, classrooms, and a



library. The Daniel F. and Ada L. Rice Campus in Wheaton, Illinois, offers upper-level undergraduate classes geared to complement the curriculum of the community colleges in the area. This campus also offers graduate classes and continuing education classes for professionals. The Moffett Campus in Bedford Park, Illinois, is the site of the National Center for Food Safety and Technology.

**Further Reading:** There are brochures, maps, and encyclopedia articles about the Illinois Institute of Technology and Mies van der Rohe. The Illinois Institute of Technology's website, [www.iit.edu](http://www.iit.edu), provides much information, including a calendar of current events and directions to the school. Books with

information about IIT and its famous architect include Rolf Achilles's *Mies van der Rohe: Architect as Educator* (Chicago: Illinois Institute of Technology, 1986); *The Mies van der Rohe Archive: Robert F. Carr Memorial Chapel of St. Savior, S.R. Crown Hall, and Other Buildings and Projects*, edited by Franz Schulze (New York and London: Garland, 1992); and *The Mies van der Rohe Archive: Metallurgical and Chemical Engineering Building (Perlstein Hall) and Other Buildings and Projects* edited by Franz Schulze (New York and London: Garland, 1992). A general history of the university is covered in Irene Macauley's *The Heritage of Illinois Institute of Technology* (Chicago: Illinois Institute of Technology, 1978).

—Anne C. Paterson

# INDIAN AGRICULTURAL RESEARCH INSTITUTE

## (New Delhi, India)

<b>Location:</b>	In India's capital, New Delhi.
<b>Description:</b>	A government-funded institution of research and post-graduate studies in agriculture with 24 departments and approximately 600 students.
<b>Information:</b>	Indian Agricultural Research Institute (IARI) New Delhi 110012 India (11) 575 4595

In the second half of the twentieth century, India underwent a tremendous transformation. For much of its history, it was a largely rural society of poor peasants living barely above subsistence level, with small sectors of urban craftsmen, merchants, bureaucrats, and idle rulers and landlords. The country was also plagued by periodic famine. In barely forty years, between 1950 and 1990, India developed a large industrial base, created the third largest pool of scientific and managerial personnel in the world, became a leader in the computer industry, began to export technology, saw the rise of a middle class over a hundred million strong, and found the resources to produce enough food for its greatly-expanded population. The results have been uneven. Vast new social problems emerged; other, older problems were not solved; and there is still a long distance to go to bring every citizen a better life. Yet, certainly what has been termed "the Green Revolution" is one of the great events of the twentieth century, and, even more certainly, one of the least known. For an institution that could symbolize this great transformation, there may be none better than the Indian Agricultural Research Institute in New Delhi. This flagship of agricultural research enabled the country's great leap in production.

When peoples of Asia, Africa, and the Pacific began to achieve their independence from Western colonial domination in the years after World War II, none were more ready than the Indians. Despite ruinous, bloody riots and massacres that had torn the sub-continent apart in the years before 1947, India had a body of well-educated, capable political leaders who wanted the chance to bring their enormous, new (but ancient) nation into the twentieth century. The country was connected by one of the largest rail systems in the world; it had a number of good educational institutions, many hospitals, functioning courts with learned judges and lawyers, and a well-trained, disciplined military and police force. Such

institutions were certainly not existent for the large majority of new nations that emerged on the world scene between 1945 and 1975. Despite a strong colonial legacy than inherited by most African nations, India still lagged in many areas, and the new leadership was only too aware of it.

Though Mahatma Gandhi had preached agrarian simplicity and self-sufficiency for many years, rejecting the industrial civilization that he felt had created so many social ills, most of the new leaders of India, from Jawaharlal Nehru down, believed that the country's future lay in following the paths taken by Japan, Russia, and the USA in transforming their agrarian societies into industrial ones. Even after Gandhi's assassination in 1948, there were a number of voices raised for keeping to his preferred path. However, from his death on, much talk echoed his ideals, but few attempts were made to put them into practice.

Though the British rulers had made many contributions toward India's modernization, they had neglected a number of fields, for both financial and political reasons. India, with its vast pool of labor, was not allowed to compete with British industry. Similarly, the development of science and technology was ignored. The educational system, from primary school through university, through impressive on paper, was weak from lack of funds and skewed in two directions. Primary and secondary education were marked by extremely low standards for most Indians, with a few excellent, mostly private or religiously-run, urban schools that produced the bulk off the top university students. British efforts in education emphasized good universities without building a mass base from which to draw as many of the country's top talents as possible. (It must be noted that before World War II, British education in the United Kingdom itself was not much different.) Indian education was also skewed because the British envisaged education in India as a way to produce the bureaucrats and clerks needed to run the vast administration of hundreds of million of people, spread over more than 1 million square miles, encompassing a vast conglomeration of ethnic groups, religions, languages, castes, and tribes. As for scientists, industrial managers, and agricultural experts, these were always provided from the metropole.

Agriculture was another area of neglect. While the British must be credited with the development of a large canal and irrigation system and with the rise of the Punjab as the modern "food basket" of both India and Pakistan, their efforts in agriculture over all were limited. British funds were limited also and the Raj preferred to

use them to protect its investments (via the military, legal system, and civil service) and not meddle in complicated questions of land tenure and class structure.

At independence, in order to industrialize, India had to face two enormous problems. First, how could the country get the expertise to build and manage all the factories necessary for industrial society? And second, if millions of workers were to be removed from agriculture, how would the food supply—always a risk of failure throughout India's history—be maintained? Better yet, how could it be increased? For a country like Japan, the answer had laid in rapid development of export industries so as to be able to import increasing amounts of food. The European method was to build an army and navy and try to conquer the territories needed for food production. America had had the expanding frontier. India had none of these options. Since 45 percent of its territory is arable land, much of which is among the world's most fertile, but whose production ratios in 1950 were abysmally low, India could only choose to boost internal agricultural development. There would have to be land reform as well, to distribute land to the farmers who would actually do the work, and to put idle land back into production. To produce, the country's farmers would have to learn new methods, utilize new kinds of seeds, and irrigation technology would have to be made available. A whole new range of practices and products, specific to the problems of Indian farms, would have to be developed. India needed a vast new program of agricultural research and extension.

In 1950, the Indian government set aside two million rupees a year for agricultural research and education in the whole country (which then included Pakistan and Bangladesh). This sum was equal to U.S. \$644,000. The central facility was to be the Imperial Agricultural College and Central Research Institute in Bihar. The American philanthropist and steel magnate Henry Phipps retired in 1901 to use his money for humanitarian purposes. Phipps, who gave money to establish foundations to fight tuberculosis and mental disease in the United States, surprisingly, on a visit to India, donated \$150,000 toward the establishment of this new institute. As a result, the site became known as "Pusa," an acronym for "Phipps + USA." The Imperial Agricultural Research Institute awarded an associateship after a two year course at post-graduate level. Most graduates went on to teach at one of the many other agricultural colleges that were built between 1905 and independence. None of these lower-level colleges engaged in research or extension work.

In 1934 a massive earthquake in Bihar destroyed every single building at the Pusa campus. As a result, the Imperial Agricultural Research Institute was moved to its present campus of 1600 acres in New Delhi, a site which then was on the outskirts of the city. It became the strongest agricultural research facility in India with "one of the

best agricultural libraries in Asia, much good equipment, and the largest staff of any such institution in India," according to *Campaign Against Hunger*. But until the decision was taken to make an all-out effort to transform Indian agriculture, the institute, which changed from "Imperial" to "Indian" along with the rest of the country on August 15, 1947, remained a place of limited interest.

India's agriculture problems were on a giant scale, so it was no wonder that Indian leaders looked to other giant nations, namely the United States and the Soviet Union, to seek solutions. Collectivization in the Soviet Union may have had its good points, but it had involved the deaths of millions, and Soviet agriculture was, even so, not a model of efficiency. The American model was both less coercive and more successful: American society, however, was so different from India's that there was a real question as to whether American methods could work in Asia. Despite some misgivings, India turned to the United States for assistance in building an agricultural revolution.

American agriculture had been transformed by a combination of the land grant universities which had strong agricultural research departments and engaged in extension work, the U.S. Department of Agriculture, and the County Extension Offices with their agents for education and improvement of life for the rural population. This structure was now transferred to India. In 1948, a pilot project was begun at Etawah in the state of Uttar Pradesh. With an American expert acting as "midwife" the Indian Community Development program was born. Extension education was the chief element of that program. Within 4 years there were 55 intensive development "community projects" around the country. These in turn led to the nation-wide system of block development. This program ran under the auspices of an Indo-American Technical Cooperation Fund developed through USAID and aided by millions of dollars from both the Ford and the Rockefeller Foundations, plus funding from UN agencies, and the World Bank. The program covered the entire nation by the early 1960s. Blocks consisted of roughly one hundred villages. Each had a center with research and experimental stations, staffed with Indian specialists on everything from youth clubs to poultry raising, seed improvement to milk production. The fundamental research and experimentation was done at the Indian Agricultural Research Institute (IARI) in New Delhi—the flagship of the whole vast effort. However, differing local needs and conditions required local experimentation and feedback for the central researchers. New varieties of wheat, rice, millet, sorghum, or sugar cane, improved breeds of animals, insecticides, chemical fertilizers, tube-well installation manuals, designs for cold storage units—all these things came from the Institute and were propagated from the block offices by extension agents who bicycled out into the myriad villages.



To lead this vast effort, the IARI was remodeled. In 1958, the post-graduate school was inaugurated with Rockefeller Foundation money. The Indian government intended "to make this new graduate school into India's principal center for education research workers and teachers for all her agricultural colleges, leaders for the extension services, and competent men for other government posts requiring advanced training in agricultural sciences." The IARI was designated one of the national institutions "deemed to be Universities." An American professor of agronomy from North Carolina, Ralph W. Cummings, who had conducted extensive research in Latin America, was appointed the first dean. American agricultural scientists were sent to be visiting professors in fields that had not yet been developed in India. The Rockefeller Foundation donated a large amount of money to expand the library and sent an American specialist in agricultural libraries to New Delhi. The foundation also paid for Indian scholars' study trips to the United States, Mexico, and several Asian countries where crucial agricultural research and development was occurring. The IARI staff attends international conferences and workshops to gain and share knowledge as well as develop confidence in their own abilities. Admission for graduate students was highly competitive because there was only 150 places per year. Once admitted, the students followed a credit course system modeled on the U.S. pattern.

By 1965, the IARI had awarded 395 M.S. degrees and 132 PhDs. Six years later there was a total of over 1000 graduates. Mexican dwarf wheat varieties associated with the work of Dr. Norman Borlaug (Nobel prize, 1970) were brought to India and cross-bred with Indian strains at IARI. The knowledge needed to make these high-yield, disease-resistant types of wheat available to the mass of Indian farmers was accumulated at a feverish pace in the 1960s. The subsequent soaring of India's wheat production is a matter of history and one of the most positive stories of this era. Yields in many part of the country doubled. Certain areas of the country, particularly Punjab, Haryana, and western Uttar Pradesh, changed beyond all recognition. Good shoes, cigarettes, ball-point pens, television sets, bicycles, motorbikes, and fine brick houses became a common sights in villages. The consumer goods produced in Indian factories became available to millions of people with more dispensable income than ever before, thanks to this "Green Revolution." A vast array of Indian-made agricultural equipment—tractors, threshers, pumps, sprayers, fertilizers—was adopted by the village farmers. This equipment, while aiding in the leap in production, also points to the underside of the Green Revolution. It put large numbers of agricultural laborers out of work. If they could find work in new industries or services, the change was not bad for them, but many could not. By the 1970s, India had become self-

sufficient in food, and its industrial program was able to expand beyond the wildest dreams of those who had greeted Independence in 1947. The IARI not only played a vital role in this great, rapid transformation, but it may also serve as a symbol of the whole effort. For this, it ranks among the foremost institutions of higher learning in the world.

The IARI produced a talented body of professionals over the years, graduates who staffed the agricultural universities (also on the American model) established in each state in India. It is a center of learning not only for Indians but for graduates from such countries as Egypt, Kenya, Nepal, the Philippines, Sri Lanka, Tanzania, and Thailand. Exchange students from Europe, America, and Australia are regularly found on its campus. The IARI produces Dr. Swaminathan, the first-ever recipient of the World Food Award, the agricultural equivalent of the Nobel prize. Other famous graduates include Dr. B.P. Paul, the internationally-known rose breeder, Dr. A.B. Joshi, the wheat breeder, Dr. A.M. Michael, known for developing irrigation systems which minimize water loss, and Dr. G.S. Sirohi, a plant physiologist who also conducted research in the Arctic. IARI graduates work as experts in the U.S. Department of Agriculture, with the UN's Food and Agriculture organization and as leading scientists in many international research institutes. Many IARI graduates have emigrated to North America, Europe, and Australia, joining over one million professionals India has sent abroad since the 1950s. In the heady days of the intense drive to raise agricultural production, the IARI was a showpiece toured by international leaders who visited New Delhi.

Today the IARI has 711 research professionals in 24 departments. There are 119 technicians and nearly 3000 other staff. The number of graduate students is around 600. The facilities include India's Central Seed testing Laboratory, a water technology center, the Wheat project Directorate, a nuclear research laboratory, and divisions of soil science, plant physiology, vegetable crops, floriculture and landscaping, entomology, microbiology, genetics, biochemistry, agricultural engineering and many more. The IARI maintains then regional research stations in the different agro-climate regions of India. The library has increased to over 600,000 volumes, and IARI publishes several bulletins and journals in related fields. From early days, the IARI began a genetic materials collection to preserve the numerous varieties of sorghums, pearl millets, and small millets found in the subcontinent. Later collections include insects, fungi, nematodes, and the germplasm of agriculturally useful microbes. Besides the tremendous success in wheat production, IARI researchers also developed new varieties of rice, hybrid sorghum, corn, pulses (lentil-like, nitrogenous plants that are high in protein and a vital part of the average Indian's diet) tomatoes, mangoes, and roses.

**Further Reading:** Although there are no specific histories of the institute, its development is treated in *Campaign Against Hunger* by E.C. Starkman, Richard Bradfield, and Paul C. Mangelsdorf (Cambridge, Massachusetts: Belknap Press of Harvard University Press, 1967) and Sterling Wort-

man and Ralph Waldo Cummings Jr.'s *To Feed This World* (Baltimore: Johns Hopkins University Press, 1978)

—Robert Newman

# INDIANA UNIVERSITY

## (Bloomington, Indiana, U.S.A.)

<b>Location:</b>	In the small university town of Bloomington, fifty miles south of Indianapolis.
<b>Description:</b>	A state university with eight campuses, enrolling approximately 91,000 students in undergraduate, graduate, and professional schools.
<b>Information:</b>	Office of Admissions Indiana University Bloomington, IN 47405 U.S.A. (812) 855-0661
<b>Visiting:</b>	Guided tours of the Indiana University, Bloomington campus are available year-round. For more information and tour scheduling, call (812) 855-3512.

From the foundation of Indiana as a state in 1816, Hoosier legislators envisioned a comprehensive system of public education that would be crowned by a state university. Article 9 of the Indiana Constitution stated that it

shall be the duty of the general assembly, as soon as circumstances will permit, to provide by law for a general system of education, ascending in a regular graduation from township school to a state university, wherein tuition shall be gratis, and equally open to all.

Four years later, in 1820, the state assembly chartered the Indiana Seminary, but classes at the new institution did not begin until 1825.

The lawmakers selected Bloomington, located in sparsely settled Monroe County, as the site of the new institution because they felt that its isolation from the boisterous and, presumably, immoral Ohio River communities would protect students from worldly evils and provide an idyllic atmosphere for a place of higher learning. This choice, however, proved to be problematic; isolation, primitive roads, and repeated failure to find an adequate and clean water supply would hinder the growth of the university throughout most of the nineteenth century. As the state's population boomed, improved transportation by stagecoach and, in 1854, by rail, brought an ever-increasing number of students to Bloomington. They found severe water and housing shortages, and as late as

the 1890s, battled the threat of malaria and typhoid from the school's wells.

The school also faced serious academic obstacles during its first sixty years. Although Indiana Seminary was nominally changed by the legislature to Indiana College in 1828, and to Indiana University in 1838, these new names did not reflect an actual expansion in the curriculum or in the mission of the school. During these early years, instruction was concentrated on the classical curriculum of ancient languages, personal morals, and religious commitments. By the 1830s classes in philosophy, mathematics, and history were added to the ancient languages. The first six presidents of the university were ministers who maintained tight administrative and curricular control of the institution, stressing the moral development of the youth in its care. Weekly sermons were given in the university chapel by the president on topics of religion and morals. When not attempting to persuade the state legislature to appropriate more money for the university, these presidents were often involved in doctrinal debates with other ministers in Bloomington and the surrounding countryside.

The narrow conception of the role of the university held by its early presidents was fueled by fears that the state legislators, who controlled funding of the institution, would prohibit growth and development during these nascent years. Legislators in the nineteenth century were wary of raising taxes to support higher education, and politics in the frontier states tended toward egalitarianism with little thought to promoting higher learning for the few. In effect, Indiana University in its early years was a state university without public support and, consequently, remained a static, classically oriented institution of little import to the intellectual and economic development of the state.

Another blow to the potential development of Indiana University came in the 1860s when the institution was denied a share of lands distributed by the Morrill Act. The state legislature used this land act to bolster the newly formed Purdue University in West Lafayette. Without funds to promote agricultural and scientific courses, Indiana University was forced to limit its academic focus to the liberal arts and the professions. This failure to meet the changing needs of students exacerbated the already difficult task of securing money from the state's elected officials.

A rare progressive note during these early, struggling years was the fact that Indiana University became the first state university to admit women. Sarah Parke Morrison, daughter of a university trustee, was the first female to





*Indiana University*

graduate in 1869. Morrison opened the door for other female students; in the year following her admission to the university 12 more women were enrolled.

Not until the 1880s did Indiana University begin its transformation into an institution that would live up to its university designation. A catastrophic fire on July 12, 1883, destroyed most of the existing campus on the south side of town, and led to the decision to relocate the university in Dunn's Woods on the east side of Bloomington. The fire proved to be a blessing because it forced the university to construct new and more modern buildings that would provide the physical plant for a larger and more forward-looking institution. In 1884 the cornerstones were laid for Wylie and Owen Halls, two buildings that form the nucleus of what is now called the "Old Crescent." In 1980, these nine buildings were placed on the national Register of Historic Buildings and continue to serve as the aesthetic heart of the university.

David Starr Jordan became president in 1885, breaking the succession of minister presidents. Before his departure (to become the first president of Leland Stanford University) in 1891, Jordan put into motion the

transformation of Indiana University from a provincial enclave to one of the best-known universities of the American Midwest. Jordan, a world-renowned ichthyologist and an 1872 graduate of Cornell University, instituted a full-scale system of elective courses and brought in new and talented faculty trained in the renowned academic institutions of the East. He increased the number of faculty from 18 to 29 during his tenure and stumped through the state, county by county, seeking support for the university.

Jordan's work was continued by the next two presidents, John Merle Coulter and Joseph Swain. These three presidents brought Indiana University into the modern era of university education. They increased state responsibility for institutional funding by constant and persuasive lobbying. As more funds were made available, they continued to widen the university's range of academic subjects and directed increasing portions of the budget toward the development of the sciences. In 1895, Indiana University took a leading role among its neighboring midwestern institutions. In April of that year, the presidents of state universities in Illinois, Indiana, Ohio, Mich-

igan, Wisconsin, Minnesota, Missouri, Iowa, Kansas, and Nebraska met in Evanston, Illinois, and formed the North Central Association of Colleges and Secondary Schools with the aim of developing communication between these state institutions and uniform accreditation standards. This organization publicized the work of Indiana University and give its faculty and trustees ■ clearer perspective on the development of higher education outside of their own state.

The first third of the twentieth century was a time of great expansion at Indiana University. Under the 35-year tenure of William Lowe Bryan, ■ talented experimental psychologist, the work begun by Jordan, Coulter, and Swain saw fulfillment. To publicize the work of the university, Bryan established a university press bureau in 1903. Although the school granted its first graduate degree in 1882, it wasn't until Carl H. Eigenmann was appointed dean of the newly formed graduate school in 1908 that graduate studies at Indiana University became formally organized. The early 1900s also witnessed the formation of a number of departments that added to the university's growth and prestige. During these years Bryan presided over the formation of the medical, music, architecture, engineering, and business schools as well as the expansion of the law school, which had been established in 1842, abolished in 1877, and then reestablished in 1899. In 1914, after much political wrangling and competition between Indiana University and Purdue University, ■ teaching hospital was opened in the capital city of Indianapolis as part of Indiana's medical school.

In particular, the music curriculum experienced a meteoric rise; after becoming ■ separate department in 1904, it was established as its own school in 1921 under the enthusiastic leadership of Dean Winfred Merrill. Merrill worked tirelessly to lay the groundwork for a strong music program at Indiana by encouraging orchestral and vocal music performances, strengthening the administration of the music school, and hiring qualified instructors. The completion of the Music Building (1937) and Auditorium (1941) further boosted the music program by providing facilities for more students and larger productions. After World War II, the music school, now led by Wilfred Bain, continued to build on its reputation. The late 1940s saw the hiring of more talented and diverse instructors, and the beginnings of an extensive opera program that, by the late 1950s, became the largest in the nation. In 1956, the music school enrolled nearly 600 students and the competition to get into the school became extremely heated. The excellent reputation of the music school was enhanced by international concert tours that promoted the university as ■ center of music study and instruction. By 1994, the school was tied with Julliard and Eastman for top national ranking by a *U.S. News and World Report* study. Currently the school of music sponsors nearly 1,000 recitals, concerts, and operas each year.

During Bryan's 35 years as president, academic

development was paralleled by physical growth. The university added 40 new buildings to its physical plant, including a new library building and the Student Building; with its prominent clock tower, the Student Building is one of the most recognizable landmarks on the university's Bloomington campus. After World War I, during which new construction was put on hold, Bryan continued the physical expansion of the university. A new stadium, women's dormitory, and an expansive student union (which, with later additions, would become the largest student union building in the world) was added to the campus. Much of the building program was enhanced by funds made available from the federal government as part of its nationwide effort to spur the economy during the Depression of the 1930s.

When Bryan retired in 1937 he humorously commented on the difficulties of expanding the scope of the university during these watershed years, saying that "is it not reasonable for a man to still be alive after having made thirty-five budgets at Indiana University." During the Bryan presidency, state support increased by more than \$2 million.

The next university president also proved to be an exceptional leader: Herman B Wells, an Indiana native, Indiana University graduate, former banker, and dean of the business school. For the next 25 years Wells led Indiana University through a period of growth that built on the Bryan years and pushed the institution further into the national and international spotlight. Because of ■ new retirement plan for faculty instituted by Bryan, Wells found himself replacing nearly half of the department heads. Attempting to avoid the tendency to recruit from within, Wells scoured the nation for talented young scholars to broaden the background and outlook of the faculty.

Furthermore, using an extensive self-survey of all constituencies in the institution, Wells developed policies that furthered the administrative efficiency and scholarly reputation of the school. A personnel office, administrative council, student health and counseling services, larger library and research facilities, and standard admission procedures were all created as a result of the survey.

Indiana University experienced ■ tremendous influx of students after World War II as a result of the GI Bill which, in an effort to ease the transition back into civilian life, offered ex-soldiers an opportunity for higher education. The need for student housing, which boomed as the enrollment doubled during the years immediately after the war, was initially met by temporary structures such as Quonset huts and mobile homes. This housing shortage spurred the construction of permanent facilities and added greatly to the number of students the university could absorb.

In the post-World War II era the character of Indiana University slowly transformed from one based in mid-western social mores to an increasingly cosmopolitan and international outlook. Wells carefully recruited foreign



scholars who were refugees from war-shattered Europe; this spurred the intellectual life of both the academic and Bloomington community. Wells also staunchly backed the work of Alfred Kinsey, who pioneered research in human sexuality beginning in 1938. Kinsey's establishment of the Institute for Sex Research in a traditionally conservative community and state became a major test of academic freedom, research, and publication. The institute's survival and the national recognition it received cemented Indiana University's status as an institution of national and international repute. In retrospect, Wells wrote about the controversy over university backing of the Kinsey Institute:

Time has proved that the defense was important, not only for understanding sexual activity, but also for the welfare of the university. It reinforced the faculty's sense of freedom to carry on their work without fear of interference, and it established in the public mind the fact that the university had an integrity that could not be bought, pressured, or subverted.

Wells retired in 1962, having set a course for the succeeding presidents; during the past 30 years the university has continued to expand and solidify its place as one of the largest and best-known research and teaching institutions in the country.

As Indiana University's academic reputation flourished so did the variety and quality of student life and campus traditions. Athletics at the university have grown from humble beginnings in the 1890s, when university teams played loosely organized schedules with other state and regional teams, to become highly organized and skilled competitors in the Big Ten conference. Basketball, in particular, has become a major focus of institutional pride. The Indiana Hoosiers men's basketball team has won five National Collegiate Athletic Association (NCAA) national championships, second only to the University of California, Los Angeles' ten national titles.

The Little 500, an annual 50-mile bicycle race established in 1951 to raise scholarship money, has become

one of the most popular campus events. Held each spring, the Little 500 has garnered national attention. In 1979, the popular movie *Breaking Away* used the race as a backdrop for its story about growing up in small-town America.

From the beginning the goal of Indiana University, as outlined in the 1816 state constitution, has been to become the apex of the state system of education in Indiana. In the last 30 years, the transformation of extension campuses into full-fledged branches of the university has helped achieve this goal. The creation of branch campuses in Indianapolis, Ft. Wayne, Gary, Kokomo, New Albany, Richmond, and South Bend has been instrumental spreading the accessibility of higher education in the state of Indiana. Currently, 80 percent of Indiana's population lives within 50 miles of an Indiana University campus. Over 17,000 faculty and staff are employed throughout the state. Indiana University maintains some 22 major schools within the university structure and grants degrees in over 850 programs. Across its campuses, the student body now numbers over 91,000, making it one of the largest institutions of higher learning in the United States.

**Further Reading:** The most comprehensive history of Indiana University from its founding in 1820 to 1970, including an entire volume of primary documents concerning the most crucial events and issues in the university's history, is Thomas D. Clark's *Indiana University: Midwestern Pioneer* (4 vols., Bloomington: Indiana University Press, 1970–77). A much less detailed but highly informative account of the university up to 1990, supplemented with hundreds of photographs from the university archives, is Dorothy C. Collins and Cecil K. Byrd's *Indiana University: A Pictorial History* (Bloomington: Indiana University Press, 1992). An informative first-hand account of IU during its most impressive years of growth and development is Herman B. Wells's *Being Lucky: Reminiscences and Reflections* (Bloomington: Indiana University Press, 1980).

—Alexander Urbiel



# INDIAN INSTITUTES OF TECHNOLOGY

## (Bombay, Delhi, Kanpur, Kharagpur, Madras, India)

<b>Locations:</b>	In five cities in India: Bombay, Delhi (in an educational complex in south Delhi that includes Jawaharlal Nehru University), Kanpur, Kharagpur, and Madras.
<b>Description:</b>	A chain of five state technological institutes enrolling approximately 13,600 students in undergraduate and graduate programs.
<b>Information:</b>	<div>Indian Institute of Technology, Bombay Powai, Bombay 400076 India (22) 5782545</div> <div>Indian Institute of Technology, Delhi Hauz Khas, New Delhi 110016 India (011) 666979</div> <div>Indian Institute of Technology, Kanpur IIT PO Kanpur 208016 India (512) 214151</div> <div>Indian Institute of Technology, Kharagpur PO Kharagpur Technology Kharagpur 721302 India (3222) 2221</div> <div>Indian Institute of Technology, Madras Madras 600036 India 2351365</div>

In 1956, Prime Minister Jawaharlal Nehru traveled to Kharagpur to deliver the first convocation address at the Indian Institute of technology, which at the time was the only one of its kind. Nehru praised the institute as a “fine monument of India, representing India’s urges, India’s future in the making.” Part of Nehru’s plan for his country’s future was to found a chain of Indian Institutes of Technology (IITs), a goal he ultimately achieved with the help of other countries: IIT Bombay opened in 1958 with the assistance of the Soviet Union, IIT Madras in 1959 with the aid of West Germany, IIT Kanpur in 1960 with the sponsorship of the United States, and IIT Delhi in 1963 with the help of Great Britain. Today the institutes are among the finest of India’s universities.

The IITs were conceived even before India won independence from Britain. By 1945, the government had determined that the key to developing Indian industry was to educate top-notch scientists and engineers in the country’s own universities. Deciding that existing engineering colleges could not produce such graduates, the government chose to establish new schools and to pattern them after the Massachusetts Institute of Technology. The Department of Education, Health, and Lands appointed a committee to determine how many institutions the country would need and what specific form their programs would take. N.R. Sarkar, a former member of the viceroy’s council, headed the twenty-four-member committee, which included leaders in the field of engineering, science, industry, and finance. They convened on April 11, 1945.

The Sarkar Committee considered recommending the establishment of a single main institute and a number of satellite schools. They decided, however, that India’s technological need would be better served by the founding of at least four separate institutions, to be built in the north, south, east, and west of the country.

A subcommittee tackled the question of how closely the proposed institutes should follow the model of MIT. In his study of the IITs, Kim Patrick Sebaly writes that the subcommittee drew up a list of goals which the Indian Institutes should adopt, and that the list was similar to the “statements of purpose” set forth in MIT’s 1945 *Bulletin*. The six goals of the subcommittee’s list were to strengthen student’s characters, give them a solid foundation basic engineering, train them to conduct accurate experiments, and teach them to write and speak clearly on technical subjects.

Sebaly notes that the subcommittee also recommended the adoption of specific features of MIT’s program. Like the Massachusetts Institute of Technology, the IITs were to require fundamental courses in science and the humanities as well as in engineering. Specialization would not be encouraged. As was the case at MIT, only in their last two years would students concentrate on a particular subject, and in their fourth year they would write a thesis.

However, Sebaly observes that the IITs were not slavishly to follow MIT’s lead. The subcommittee also recommended, for instance, that IIT students spend 300 hours on their theses, while MIT students spent 120 hours on theirs. Furthermore, the subcommittee advised that IIT students should receive practical experience in industry as well as training in workshops, suggestions that deviated from the MIT model.

The Sarkar Committee’s plan for the Indian Institutes of Technology, submitted in March 1946, was a revolu-

tion in the country's engineering education. To that point, said the committee's report, engineering colleges failed to "integrate mathematics, science and humanities with the specialized professional subjects." The schools lacked such courses because, in the words of the Sakar Committee, "the purpose of engineering college programs was limited to supplying recruits to government departments responsible for the maintenance of civil works located in the provinces." The IITs were to educate creative engineers who were also well-rounded scientists, engineers who would be the leaders in India's technological development.

Later committees refined the Sakar's proposal. In 1950, for example, a committee composed of members of the All-India Council for Technical Education and the Inter-University Board decided that the IITs should grant degrees in four kinds of engineering: civil, mechanical, electrical, and telecommunications. In their first two years, all students would take the same courses, and in their third year they would concentrate on their chosen type of engineering, with students who and chosen the same type of electives in their field of specialization. In their fourth year, they would take electives in their field of specialization. The committee also recommended that the institutes offer a master's degree in each of the four kinds of engineering. The refining and improving of the program continued over the years because one of the qualities which were to set IITs apart from most Indian universities was the power to try out new ideas. Unlike other government-funded schools, the IITs were to make their own decisions in all, academic and administrative matters.

In 1951, the first Indian Institute of Technology opened at Kharagpur. Five years had passed between the publication of the Sakar Committee's report and the opening of the institute. Among the problems that caused the delay were lack of qualified Indian instructors and insufficient funds for equipment and books. These problems were solved with the help of other countries, though the first IIT had no single sponsor nation, as did later Indian Institutes of Technology. While visiting professor came to Kharagpur from the former West Germany and other nations, the University of Illinois supplied the most assistance, sending ten professors for two years and welcoming twenty three Indian students and teachers, who did research or received graduate education at Illinois. The university also gave about \$200,000 worth of equipment to IIT Kharagpur.

Lack of equipment and instructors also postponed the opening of the second IIT. Prime Minister Nehru petitioned UNESCO for assistance, and one of its participant nations agreed to help. The Soviet Union gave technical equipment to the new school, sent experts to install the equipment, and published books to be used at the institute. Soviet professors designed and set up laboratories, helped develop departments, taught courses, and designed ■ graduate program which, like those in the

Soviet Union, stressed specialization. The USSR also granted fellowships to Indian professors. With this assistance, the second IIT opened in Bombay in 1958.

The success of collaboration with the USSR led Nehru to seek aid from West Germany in the founding of the third IIT, to be located in Madras. The German government gave equipment and texts to the institute and sent professors to help establish it. They shaped its program to emphasize the German system of practical experience in workshops, and they opened communication between the new school and the region's industries in hope that the institute could help solve their problems. Germany also gave scholarships to Indian professors, who studied for two years in Germany before returning to the new Indian Institute to teach. Thanks to this help, IIT Madras opened in 1959.

India looked to the United States for aid in establishing the fourth institute. The U.S. provided substantial assistance, including equipment and books, experts to design the new institute's laboratories and plan its library, visiting professors to teach some of its courses, and fellowships to Indian professors. A consortium of nine American universities also helped shape the new IIT's curriculum so that it would closely follow the American system of engineering education. With this program in place, IIT Kanpur opened in 1960.

These were the four Indian Institutes of Technology envisioned by the Sakar Committee; Kanpur in the North, Madras in the South, Kharagpur in the East, and Bombay in the West. The fifth was an unexpected development.

In 1961 Delhi University opened its College of Engineering with the help of British funds. Industries in Great Britain then contributed ■ surprisingly large sum, approximately £400,000, to help equip the new college. This increase in funding enabled the College of Engineering to become IIT Delhi in 1963. Great Britain continued to sponsor the institute in many ways, especially by extending fellowships to Indian instructors and sending professors to Delhi to help shape its program. They designed a curriculum that stressed practical experience, since industry in India, unlike that in Great Britain, was not developed enough to provide that experience to new graduates.

Collectively, the Soviet Union, West Germany, the United States, and Great Britain supplied over \$17 million worth of equipment to the Indian Institutes of Technology. The four sponsor countries sent over 150 full-time visiting staff and 300 short-term consultants to India. More than 230 Indian professors received fellowships to study in sponsor nations.

Each of the four countries left its imprint on the IIT it helped establish. Because of the influence of Soviet experts, the graduate program at Bombay stresses specialization. Thanks to German professors at Madras and British professors at Delhi, the curricula of those IITs place particular emphasis on practical experience. Of all the sponsor nations, the United States had the most influ-



ence, shaping the program, the teaching methods, and the administration at Kanpur. But none of the four countries made the profound imprint on the institutes that the government had anticipated in 1961, when proponents of the IIT project had assured the Indian Parliament that the "assistance of different nations to four IITs would help to produce alternative patterns in order to develop different methods of training high level technical personnel." No country could introduce radically "alternative patterns" because the institutes had been dedicated to the MIT model from their inception.

Today the IITs, which the government has named Institutes of National Importance, are among India's most prestigious universities. For each incoming class, the institutes regularly receive up to a thousand times more applications than they have places available. The IITs grant nearly 60 percent of India's Master of technology degrees and 75 percent of its doctoral degrees. Graduates of the Indian Institutes of technology are respected around the world.

However, India has paid a price for that respect. Because industry has not developed as the government had hoped, many IIT graduates, unable to find attractive positions at home, go abroad to countries eager to employ them. In 1987 and 1990, S.P. Sukhatme conducted studies of this "brain drain" from IIT Bombay and concluded that 30.8 percent of the institute's graduates emigrate and do not return. The other IITs' rates of brain drain are no doubt similar to Bombay's. Speaking of India's loss of highly-trained professionals to other countries, Delhi educational consultant D. Biswas observed that "India has repaid through export of human capital more than the total aid it received from abroad." However, Professors P.V. Indiresan and N.C. Nigam of the institute at Delhi are confident that the IITs will yet be at the heart of the industrial growth that will slow the brain drain. If Indian

industry had developed, Indiresan and Nigam write, "IIT graduates would have formed the core of creative scientist-engineers required for such an effort. They will do in the future, provided the goals of excellence are preserved and supported."

Despite the numbers who emigrate, most IIT graduates do find careers in their homeland. Many work in India's atomic energy, space, and defense programs, while others are employed in telecommunications. Most of the staff of the government's research and development laboratories graduated from an IIT, as did most of the employees in national science and technology departments. The majority India's science and engineering teachers, too, received their degree from an IIT.

The first Indian Institute of Technology, Kharagpur, stands on the site of the former British prison of Hijli. In the institute's first convocation address, prime Minister Nehru spoke of the location's symbolic value: "Here in the place of that Hijli detention camp stands this fine monument of India. . . . This picture seems to me symbolic of changes that are coming to India." Today at least one of those changes has been realized, for the Indian Institutes of technology are fulfilling Nehru's prediction that his country would one day educate its own "scientists and technologists of the highest caliber."

**Further Reading:** A detailed account of the establishment of the IITs will be found in Kim Patrick Sebaly's doctoral dissertation, *The Assistance of Four Nations in the Establishment of the Indian Institutes of Technology, 1945-1970* (Ann Arbor, Michigan: University of Michigan School of Education, 1972).

—Carol Whitney



# JAGIELLONIAN UNIVERSITY (Krakow, Poland)

<b>Location:</b>	In the center of downtown Krakow.
<b>Description:</b>	A state university of 16,650 students. The second-oldest central European university, after the University of Prague.
<b>Information:</b>	Jagiellonian University Golebia 24 31-007 Krakow Poland (12) 22 10 33

The foundation of the Jagiellonian University at Krakow is normally dated to 1364, when its charter was issued by the last of the Piast kings of Poland, Casimir the Great, although the charter was probably a confirmation of an earlier 1362 foundation. The 1364 charter was followed by a bull of Urban V in the same year, making the foundation both secular and ecclesiastical, and the Jagiellonian University made the celebration and the 600th centenary of its foundation ■ pretext for a reorganization in 1964. In 1364, the right to bestow degrees was reserved to the royal chancellor, and the crown was responsible for salaries. But the new university languished after Casimir's death in 1370; among many problems, there was great difficulty in finding good faculty from abroad. It was resuscitated only by King Wladyslaw Jagiello, who in 1397 procured a bull from Boniface IX instituting a faculty of theology. In 1400, fortified by the wealth inherited from his wife, he issued a new charter for the whole university, which flourished under the Jagiellonian dynasty.

Krakow, listed by UNESCO in 1978 as one of the world's 12 great historic cities, had been the capital of the Polish state since 1037. After Krakow developed as a market town in the tenth century, Boleslaw the Brave built the first Polish cathedral on Krakow's Wawel Hill, overlooking the Vistula River, in the early eleventh century. It is there that the royal insignia are kept, and that ■ series of kings lived and are buried. The earliest lectures were given in the immediate vicinity of the royal castle, probably in or near the cathedral school, although university buildings in the present old city were begun certainly before 1370.

The capital until 1611, Krakow today is still Poland's third largest town. The fifteenth-century Gothic *collegium maius* with an arcaded courtyard and ground-floor lecture rooms still stands in the center of the town. Originally endowed in 1400, it was used in that year for the opening

ceremony of the university. It now houses the Institute of Art History and the university museum's famous collection of scientific instruments, particularly astrolabes, telescopes, and globes, including those which must have been used by Nicholas Copernicus during his period as a student at Krakow from 1491 to 1495.

The older university buildings, blending with the adjoining medieval marketplace, Europe's oldest, and including the fifteenth-century college of law and the 1449 *collegium minus*, make the small town center one of the most attractive in Europe. A college of medicine collapsed during the fifteenth century, but the new college in the Bracka, whose existing buildings date from 1883–87, was originally opened in 1464. The town walls were pulled down in the nineteenth century, and now the old city is encircled with avenues and park-lined fringes leading to the small 15-acre Wawel Hill and the castle, which dominates the town.

The university's original 1364 constitution was based on the University of Bologna, clearly envisioning a graduate student body, with rector and professors to be elected by the students, and no master eligible for the rectorship. The rector had full civil and some criminal jurisdiction. The principal subject was to be law, and the papal bull not only expressly excepted theology from the papal privileges bestowed on the university, but it also refused to endorse the royal chancellor's jurisdiction, insisting on Episcopal rights. In cases of serious misdemeanor, clerks were to be referred to the bishop's tribunal and others to the royal courts. Salaries were a charge on the tax on salt from the Bochnia mines.

When the restored university actually opened in 1400, the original constitution had been altered to reflect the changed conditions created by the Polish-Lithuanian union of 1385. The clause requiring the rector to be a student disappeared, and the rectors were in fact masters. The model had become Paris rather than Bologna, and the masters now clearly acted in common as a corporation. Colleges of jurists and of arts were founded on the German model for masters, not students, and in 1433 the faculty of medicine was reorganized. By the 15th century there were also student halls with small endowments, at least one of which was to accommodate 100 students. Under the 1397 arrangements, salaries, as in Prague, Leipzig, and the other German-speaking universities, were now provided through the bestowal of ecclesiastical benefices. The chancellor was the bishop of Krakow.

Krakow's original foundation is generally now seen as part of a movement of political unification of ethnic Poles and the consequent need for educated national-minded



*Jagiellonian University*

Polish administrators. The 1364 charter was the product of more than a decade's careful gestation. East of Paris, Krakow was preceded north of the Italian peninsula only by Prague (with the exceptions of Grenoble and Avignon). The overwhelming need for administrators explains the concentration on the law faculty, to which a privileged position was accorded, with five chairs in Roman law and three in canon law. In 1397 the balance shifted, and 11 chairs in theology were created, with 8 in canon law. In the fifteenth century the undergraduate faculty of arts, operating in the two old city colleges and preparing students for the higher faculties of canon law, civil law, theology, and medicine, had 22 poorly endowed chairs.

When the university opened, 205 students were matriculated in the first year. Students came from throughout Poland, but also from Hungary, Silesia, the southern German-speaking provinces, and the northern territories of

what is now Switzerland. Just under half of the fifteenth-century intake was foreign. Recruitment, fluctuating between 35 and 110 during the decade following 1400, increased to 150 in 1411. It thereafter seldom sunk to 100, probably on account of the difficulties being experienced by Prague. From 1408 the doctrines of Wycliffe had gained a strong hold among the Bohemian students, and the university there supported the king against the bishops in his attempt to withdraw from allegiance to Gregory XII. In 1409, in the wake of a movement to change the voting strengths led by Hus in favor of the Bohemians and to the disadvantage of the Germans, about 1,000 Germans left Prague, mostly for Leipzig or Vienna, but also for Krakow, where matriculation in the years 1408, 1409, and 1410 reached respectively 35, 57, and 88.

Matriculations suddenly bounded up to 388 in 1483. On the whole the university, much supported by Wladys-



law's queen, Jadwiga, whose fortune had enabled her widower to found it, tended to moderate conciliarism in the matter of papal powers. It supported Felix V at the Council of Basel, and was finally left alone in support of Nicholas V in defiance of king and episcopacy until unity was restored in 1449. In July 1448, the masters appealed for support to the universities of Paris, Vienna, Leipzig, Erfurt, and Cologne.

Through the sixteenth century, the university had a large student body from other countries. Its principal attraction for foreigners lay in its interest in mathematics and astronomy, in which it had two chairs. No other university north of the Alps had a chair in either subject before 1500.

The university was also deeply concerned with the promotion of Christianity in Lithuania, to which Queen Jadwiga, known as the "planter of the Catholic faith in Lithuania," was particularly committed. During the fifteenth century no less than six of the bishops of Wilno were *magistri* of Krakow. As might be expected of Europe's easternmost university, many of the Polish *magistri* had studied abroad, especially in Bologna and Padua; gifts from those who had studied in these places originally formed Poland's own early philosophical and theological manuscript collections. The Poles had formed their own "nation" at Bologna in 1265, providing a dozen rectors before 1500.

The university also was associated in the late fifteenth century with the early enclaves of enthusiasts for Latin and Greek literature, notably those centered on the Greek poet Callimachus and the German promoter of the classics, Conrad Pickel. In 1473, the first printing press in Poland was set up, intimately linked with the university. Krakow's publishers issued numerous textbooks alongside a stream of Latin and Greek classical texts, and they also published the first books in Hungarian. Lectures were instituted in Greek from 1499 and Hebrew from 1528. The teaching of rhetoric was reformed on Renaissance lines in 1518. By the first half of the sixteenth century there were some 200 matriculations a year, making the university an important community in a town with a population estimated at some 20,000.

The university had by now reached the peak of its international eminence, having for a century attracted almost half of its students from foreign countries. The consequences of the Lutheran schism took their toll as the university hardened its reaction to the new theological thinking which the schism brought in its wake. Between 1548 and 1554 sanctions were applied to maintain Aristotle's authority in philosophy. Although sharp controversy had arisen within the university, the reform of studies in 1603 confirmed the university's hostility not only to Lutheranism, but also to those forms of study, as of the pagan literary classics, thought conducive to heresy.

At the same time the university fended off the Jesuit attempt to achieve ascendancy within the Polish educa-

tional system, forcing the order to close its college in what is now the university's *collegium broscianum*. The mix of students within the university also changed, as the student population became less elevated in social rank, and dissenting schools as well as new universities were opened elsewhere in Lithuania and Poland. Astronomy and mathematics courses, which had been so well-respected at the turn of the century, lost something of their impetus. A 1516 plan to reform the Julian calendar had come to nothing, and the content of astronomy moved off in the direction of predictive astrology. Slow to adopt new ideas, the university suffered declining student enrollment. The most distinguished faculty in the early seventeenth century was medicine, in which there were six chairs, including one of anatomy and medical botany.

Between 1655 and 1657 Krakow was occupied by the Swedes and the general assembly of professors voted on July 11, 1656, to shut down the university. It remained closed until the city was restored to Polish dominion on August 24, 1657. The university was again paralyzed by the renewed Swedish occupation of Krakow from 1702 to 1709, although it recovered sufficient vigor to branch out into classes in French and German in 1713. Later eighteenth-century developments included attempts to found chairs in natural law and the law of nations, experimental physics, and mathematics. More recent philosophical thinking entered the curriculum with the reform of the faculty of philosophy in 1765.

The reform of the university itself did not occur until the creation in Poland of Europe's first Ministry of Education on October 14, 1773. The reform, the first since the Middle Ages, was entrusted to Hugo Kollataj, a Krakow graduate, politician, and philosopher. He scrapped the medieval four-faculty structure in favor of two colleges. The moral college contained literature, law, and theology, and the physical college was made up of the physical, mathematical, and medical schools. Except in theology, Latin was abandoned in favor of Polish as the medium of instruction.

The name was changed to the Crown's Central School, and in 1783 it took over the supervision and management of local primary and secondary education. In accordance with the spirit of the Enlightenment, Kollataj prescribed practical tasks for the reformed Central School, which was charged with serving the everyday welfare of the community in agriculture, industry, hygiene, health, and education. Among the results were a graduate college for teacher training set up in 1780; Poland's first medical clinic, founded in 1780; the botanical gardens of 1782; the chemical laboratory of 1783; and the observatory of 1787. French physiocrat economic theory flourished, and the reformed Central School began to specialize in applied technologies, like surveying and the exploitation of electricity.

The Crown's Central School came to an end in 1794, with the occupation of Krakow by the Prussian army on June 15, 1794, by the Austrians from January 5, 1796, and



the subsequent partition of Poland. An attempt to close the university was thwarted, but lectures in Polish were discontinued, as was the financial autonomy of the institution. Germanized, the university was united with the Lyceum transferred from Lwow, with the majority of chairs held by German speakers. After Napoléon's defeat of Austria, Krakow became part of the Grand Duchy of Warsaw in 1809. From 1809 to 1815 the university became the Central School of Krakow, again under Hugo Kollataj, subordinated to state authority on the French Napoléonic model. In 1815 the Duchy of Warsaw was dissolved and Krakow, under the dominion of Austria, Russia, and Prussia, became nominally a republic. In 1818 the university was reorganized with theoretically extensive internal autonomy, and again became the Jagiellonian University. In fact supervision was progressively tightened with Foreign Minister Prince Metternich of Austria clearly fearful of student nationalist sympathies. Nonetheless, the Krakow "learned society" was opened in 1815 in association with the university. In 1873 it became the Polish Academy of Science. The "Republic of Krakow" as nationalist activists called it, was incorporated into the Austro-Hungarian Empire in November 1846, and in 1853 German became almost the unique language of instruction. The university was a provincial academy educating loyal subjects of the Austrian monarchy. After Austria's defeat and the regaining of Polish self-government, Polish was again allowed as the principal language of instruction in 1861. From 1870 to 1918 the university gradually became Poland's great seat of learning, vastly increasing in size, and growing from about 400 students in 1850 to 1870 to over 3,000 in 1914.

Between 1918 and 1939, the Jagiellonian University supplied Poland on a large scale with scholars, teachers, and professional practitioners of law and medicine. Its series of specialized institutes was created, including nursing, physical training, pedagogy, agriculture, pharmacy, and Slavonic studies. Although Warsaw was now a bigger city, Krakow's university was quite influential. After the German invasion on September 6, 1939, 183 professors and lecturers were arrested at Krakow on November 6. Many died at Dachau or Sachsenhausen, and the university was systematically despoiled. Students continued their studies through an underground network. (One such student, Karol Wojtyla, later became John Paul II, the first Polish pope.) Liberated by the Red Army on January 18, 1945, the university opened again and inaugurated its new academic year on March 19. Some 12,000 students entered for the academic year 1946-47.

Polish higher education was reorganized between 1949 and 1954. The university did away with the institutes of medicine and pharmacy, then physical training, agriculture, forestry, and finally theology, which was transferred to Warsaw. Five faculties remained: law; philosophy and history; philology; mathematics, physics, and chemistry; and biology and natural science. The 600th anniversary celebrations in 1964 inaugurated yet another reorganization of the university's structure to build, as its 1975 handbook put it, "a new model of Socialist higher education." Recruitment was partly to be determined by national economic needs and the social origin of candidates. Paid work in state-owned factories was compulsory in long "vacations," and about 70 percent of students received some form of public financial aid.

One of 12 universities now in the city, Jagiellonian today is responsible to the Ministry of Science, Higher Education, and Technology and regulated by basic statutes first issued in 1958. There are five faculties, each containing a number of institutes; the teaching functions of former departments are gradually being transferred to the faculties. There is a purely advisory senate, including non-academic representatives, with a rector appointed triennially. The library is the richest in Poland and functions as a national library. It contains some 2 million volumes, and 10,000 manuscripts. Social and economic pressures in Poland are certain to force another reorganization of the Jagiellonian University, and both its antiquity and its prestige insure that it will play an important part in Poland's future higher education system.

**Further Reading:** For the early period of the university, the most important work is Hastings Rashdall's *The Universities of Europe in the Middle Ages*, three-volume revision, edited by F.M. Powicke and A.B. Emden (Oxford: Oxford University Press, 1936). For the general history and the twentieth century, see especially the revised edition of Leszek Hajdukiewicz and Mieczyslaw Karas' *The Jagiellonian University* (Krakow: Wydawnictwo Uniwersytetu Jagiellonskiego, 1978). Another detailed, extensive treatment is *Crawco and its University* by Jozef Duzyk and Stanislaw Salmonowicz, translated by Marianna Abrahamowicz (2nd edition, Krakow: Wydawnictwo Artystyczno-Graficzne, 1966), which is nicely illustrated.

—A.H.T. Levi

# JAWAHARLAL NEHRU UNIVERSITY

## (New Delhi, India)

**Location:** Jawaharlal Nehru University is located in southern New Delhi, bordered on the west by the exclusive Vasant Vihar residential area and on the east by the Indian Institute of Technology. Its southern perimeter is dotted by the buildings of the rapidly expanding Vasant Kunj residential complex.

**Description:** The university awards mainly advanced degrees in the sciences, social sciences, and the humanities. The only undergraduate degrees offered on campus are in languages. It currently has seven schools, each with various centers, and offers undergraduate and graduate recognition to off-campus institutions such as the National Defense Academy, Pune. Jawaharlal Nehru University is one of the select 12 universities funded by the Indian federal government.

**Information:** Jawaharlal Nehru University  
New Delhi 110067  
India  
(011) 6107676, (011) 6167557

**Visiting:** Write to the Office of the Registrar at the address mentioned above for further information.

Inaugurated in 1969, Jawaharlal Nehru University (JNU) was designed as a tribute to the memory of the visionary first prime minister of independent India, Jawaharlal Nehru. In its short history, Jawaharlal Nehru University has gone beyond its founding ideals of humanism and international understanding. Jawaharlal Nehru University is widely regarded in India as the leading center for higher learning in the country. Although it suffers from the malaise of fiscal shortages plaguing all Indian universities, JNU still evokes admiration for the high standards it maintains despite resources which are inadequate and thinly stretched. More than history and a collective sense of its past, JNU is famous for its vibrant and deeply political campus life and for the quality of graduate education it offers. Its small body of about 4,000 students looks to the future rather than to the past.

A thousand-odd acres of rocky, scrubby land make JNU an oasis of calm yet rugged beauty in a city which is slowly choking itself to death through unplanned growth and rampant pollution. As New Delhi fumes and belches

toward unsuitable urban growth, JNU is a reminder—though a besieged one—of the virtues of simple living and high thinking. Its campus spreads out like a calm invitation to reflection and sociability and its students accept and cherish that aspect of JNU. An open-air amphitheater situated among the rocks and the serene heights of the Parthasarathy plateau (the highest point of the campus) are the unexpected delights that campus explorers may stumble upon.

The main gate opens unpretentiously onto a bougainvillea-lined road which winds through the campus and loops around it in an inner circle. Following this road, one can reach all the major subdivisions of the JNU campus. Jawaharlal Nehru University is famous for its campus life and imaginative architecture has contributed to the involvement of students in campus life. The national competition for the architectural design attracted 68 prominent architects. C.P. Kuckreja, the winner, designed the student and faculty residences in appealing red brick which went well with the rocky nature of the terrain. The academic complex is a pleasing quadrangle with creeper-covered walkways leading to each building and to the eight-story library. Maintenance funds being low, the insides of most buildings look shabby and in need of paint. In compensation for the shabbiness, the walls are richly decorated with a wallpaper of posters—changed frequently—urging students to “study and struggle” and to join in various causes of national and international appeal. The walls of the library canteen are especially popular with campus groups for publicity purposes.

Student and faculty residences are interspersed interestingly; both groups enjoy their privacy without isolation from each other. A total of 16 such residential sectors is envisioned, and construction is one of the permanent features of the campus. One of the problems with the elevated and rocky nature of the campus is that it faces a chronic water shortage, being located in the arid southwestern margins of New Delhi.

Jawaharlal Nehru University residential complexes are named for the geographical divisions of India. The student residences or hostels are named for the rivers of each sector. So, the hostels are named after the rivers Ganga, Sutlej, and Jhelum in the Uttarakhand or northern sector. One of the newest hostels is Narmada hostel in the sector called Dakshinapuram. Life in a JNU hostel is spartan at best. Meals are basic and there are few frills. To be a commuter student, though, would remove one from the other activities that compensate for the austerity. Student sociability centers around the tea stalls outside the hostels. One of the best-loved watering holes is Ganga





*Jawaharlal Nehru University*

Dhaba, the tea stall outside Ganga hostel. Here, summer evenings are especially busy when students gather in small groups. The socializing continues till late into the night and conversation ranges from idle reflections on the day gone by to serious strategizing for the next student's union election. Some critics point to the contradictions between the deadly serious political talk that suffuses the student body and the reality of the small children who serve tea to those sitting around discussing inequalities in Indian society. Yet, the intensity of political life on campus is not all abstraction. Many students leave campus not only with a degree but also with a permanently changed outlook on life. It is said that in order for problems to be solved, their existence must first be acknowledged. In this regard at least, the politicization of campus life has led to a fierce refusal in a section of the student body to let certain social and political issues be brushed under the carpet. Feminism, minority rights, social and economic justice are all debated fiercely among students in formal and informal gatherings.

It is this intense engagement with politics that has endeared JNU to many, and to others, including fearful parents, marked it as an unruly bastion of Marxist revolution. Student activists scoff at the criticism, pointing out (with some justification) that politics in JNU is issue-based and intellectual and does not result in the kind of

rowdyism and bullying tactics that are a standard feature of student politics in other Indian universities. Like all major universities in India, student politics in JNU is serious business. Most major Indian political parties have their student wings, and campus leadership is often a stepping-stone to national-level politics. Jawaharlal Nehru University politics are vociferously left-of-center, although in recent years, right-wing student groups have also made advances in the polls. Political involvement is celebratory in spirit and generally anti-administration. The students' union election is preceded by days of debates and meetings. After-dinner hostel meetings keep students involved and informed. The Election Commission ensures that expenditure is kept to a minimum and that the election is based around issues and ideology. The counting of the votes is a major occasion of celebration. All parties and their supporters camp outside the counting office and cheer when their candidates are announced to be leading. The festive atmosphere lasts all night long and morning usually finds both victors and vanquished exhausted.

Twice in the last 15 years, JNU student politics has come under scrutiny. In 1983, a student agitation based around campus issues such as admission policy and living conditions escalated into a full-fledged confrontation between students and administration. Students besieged the vice-chancellor's office and attacked administrative



personnel and even some faculty. This outbreak of violence resulted in the police entering the campus to break up the agitation and to arrest the leaders. Many students were expelled, some were suspended. 1983 still lives on in JNU student mythology as a watershed year. To a large extent, it was. Since then, many changes were made in admissions policy and administrative measures. Radical students argue that the new admissions policy discriminates against those from a rural background and thus dilutes the stated national character of JNU. Administratively, a Grievance Redressal Mechanism began operations to prevent university issues from spilling into violence again. Student activists argue that these new measures restrict student activity on campus and have resulted in a greater bureaucratization of the university.

Jawaharlal Nehru University is also perhaps the only university in the world where a student's union election centered around democracy in another country. In 1989, the JNU students' union was led by a communist coalition. In June, when the incidents on Beijing's Tiananmen Square hit world headlines, the students' union, following the directive from party headquarters, refused to condemn the Chinese government's crackdown on the protesting students. A coalition of other students then led a demonstration to the Chinese embassy. Later that year, control of the students' union passed to a loose confederation of left-wing students called Solidarity. Solidarity denounced the previous union's record on Tiananmen and also pledged to refocus on campus issues. The coalition fell apart less than a year later, but it did initiate an agitation to undo some of the restrictive administrative measures passed after 1983. The agitation achieved few concrete goals, but it succeeded in restoring to the campus a participatory culture in student politics, which had dwindled in the years since 1983. Immunization camps for the children of the construction workers and a campaign against the construction of the Tehri dam in northern India, were not all-out successes either. However, they did somewhat reduce the criticism that JNU politics paid more attention to Che Guevara, Malcolm X, Ho Chi Minh, and Noam Chomsky than it did to local and national issues. The politics of affirmative action split the campus in 1989 and divided many students. Many students in the coalition objected to a new government policy reserving jobs for underprivileged groups in society. The divisions on campus reflected the divisions in India, and some conservative groups withdrew support to the union coalition. The polemical nature of JNU politics continued with a major controversy in 1996 when students objected to a right-wing national leader, L.K. Advani, being invited to the campus. The invitation was withdrawn, but it set off a debate over the right of dissent in a university and the freedom of expression. A national daily called for a crackdown on the students and suggested that one way to keep JNU students away from politics would be through reducing the number of social science and liberal arts

courses and instituting more technical and managerial courses. Student activists are not likely to be swayed by these criticisms, but the incident drew attention to the divisions that exist in the student body.

Jawaharlal Nehru University culture shuns glamour and appearance as unnecessary distractions (though there are always students who enjoy "the bourgeois life" condemned by activists). Focusing on issues and beliefs, stressing intellectual rigor and substance over style and refusing to privilege the middle class over the rural and working world, JNU student politics prepare many for public life. It is here that future civil servants, academics, and politicians learn to place their ideas to clash or mingle with others and to test the strength of their own convictions against the beliefs of others.

Politics and activism are not just external grafts on to the campus culture; they have deep roots in the founding vision of the university. In 1969, when the Indian government founded JNU, it was to actualize Nehru's vision of an ideal university, an institution that in his own words, "stands for humanism, for tolerance, for reason, for the adventure of ideas and for the search of truth." If the process of realization has left many of the original founders, particularly the more conservative ones, dissatisfied on ideological grounds, the academic excellence of the institution has lived up to expectations. A talented contingent of researchers and professors have made their home in most JNU departments. Renowned historians Romila Thapar and Bipan Chandra taught here, and among its widely respected faculty are the political scientist Zoya Hasan and the economists Prabhat and Utsa Patnaik. Academic excellence has led to an international reputation for JNU and it attracts scholars and graduate students from a variety of countries. Some departments are better known than others: the departments of history, political science, sociology, and economics are leading centers in their fields. Departments combine rigor with flexibility and interdisciplinary methods are encouraged. Jawaharlal Nehru University is also home to the National Institute of Immunology and the UNIDO Centre of Genetic Engineering.

Standing on the outer periphery of New Delhi, JNU is at the center of intellectual life in India. Scholars find it a stimulating core of academic excellence. Its relatively small community of students lead a robust—if somewhat detached—collective existence, and its many non-academic visitors find craggy, strong beauty in the rolling campus as they come to meet friends and relatives or to lose the grime of New Delhi for a while in strolls along JNU's shaded paths.

**Further Reading:** There are few books centered around Jawaharlal Nehru University. This is because it is a relatively new university. The most useful publications are from JNU, especially its *JNU News*, published bi-monthly. Detailed, if

somewhat official, information can be found in *JNU: Retrospect and Prospect* (New Delhi: Jawaharlal Nehru University, 1986). General studies on Indian higher education help put the development of JNU in a national context. *Higher Education in India: Conformity, Crisis, and Innovation* by G. Ram Reddy (New Delhi: Sterling Publishers, 1995) and *Higher Education in India: In Search of Quality* edited by K.B. Powar and S.K. Panda (New Delhi: Association of Indian Universities, 1995) talk about some of the problems with university education in modern India. The current chancellor

of JNU, Prof. M.S. Gore has also analyzed India's higher education policy. See *Indian Education: Structure and Process* by M.S. Gore (Jaipur: Rawat, 1994). *Academics and Politics* by Subhash Chandra Ghose (New Delhi: Northern Book Centre, 1993) analyzes the political activities of Indian university students.

—Sharmishtha Roy Chowdhury

# JOHNS HOPKINS UNIVERSITY

## (Baltimore, Maryland, U.S.A.)

<b>Location:</b>	In the Homewood neighborhood of Baltimore, Maryland; two additional campuses in Baltimore, one in Washington, D.C., additional facilities in the Baltimore-Washington area, China, and Italy.
<b>Description:</b>	Johns Hopkins has approximately 16,000 students in undergraduate, graduate, and professional programs.
<b>Information:</b>	Office of Admissions Johns Hopkins University 3400 North Charles Street Baltimore, MD 21218 U.S.A. (410) 516-8171

Baltimore merchant Johns Hopkins's bequest of \$7 million in 1873 for the establishment of a university and a hospital was the largest philanthropic gift of its time. The third son of Samuel and Hannah Hopkins, Johns was born at Whitehall, the family tobacco plantation in Maryland's Anne Arundel County. His unusual first name came from his great-grandmother, Margaret Johns, who married Gerard Hopkins in 1700. Johns's parents were active members of the West River Meeting of Friends (Quakers). The Quakers were abolitionists, and in 1807 Samuel Hopkins freed all the slaves on his plantation. As a consequence, Johns was forced to leave school at the age of 12 to work in the family tobacco fields. Five years later he was sent to Baltimore to work for his uncle Gerard Hopkins, a wholesale grocer and commissions merchant. The apprentice progressed smoothly until 1819 when Johns, who had fallen in love with his cousin Elizabeth, announced plans to marry her. His uncle (her father) forbade the union as did the Society of Friends. Although the couple agreed to accede to her father's wishes, they also pledged never to marry anyone else.

The strained relationship between Johns and Gerard grew more uncomfortable when Johns wanted to expand the grocery business to include the sale of liquor. Gerard was opposed, but Johns was convinced that there was money to be made in the whiskey trade. Many of the grocery's customers wanted to barter homemade liquor for food and other items; Johns saw no reason why he should not accept the liquor and sell it. He set out on his own with financial backing and help from his brothers, his mother, and her brother, selling Hopkins' Best Whiskey in Mary-

land, Virginia, and North Carolina. Johns had learned well from his Uncle Gerard and the fledgling business was soon bringing in large profits. Hopkins then expanded his interests into the banking industry and into the Baltimore and Ohio Railroad (B&O). His early support for the railroad stemmed from his personal experience of moving goods via Conestoga wagon on the rocky terrain of the Shenandoah Valley. Hopkins was soon the largest stockholder with an estimated 15,000 to 17,000 shares. In 1847 he was elected to the B&O board of directors; by 1855 he was chairman of the railroad finance committee. When the Civil War broke out, Hopkins, an avowed Unionist and abolitionist, used his considerable influence to override wishes of the numerous Southern sympathizers on the B&O board so that the railroad could be used by the Union army.

It is generally believed that Hopkins's disappointment at the early termination of his own education, coupled with his dismay at the city's inadequate medical resources in the face of cholera and yellow fever outbreaks, led him to draw up a foundation to fund a university and hospital. The bequest carried few restrictions other than the hospital was to admit everyone who needed its services, regardless of their ability to pay. A board of 12 trustees was appointed in 1867 but did not meet until 1874, a few months after Hopkins's death. In February of that year, the board began its search for a university president. In doing so, the board consulted three existing university presidents: Charles W. Eliot of Harvard, James B. Angell of Michigan, and Andrew Dickson White of Cornell. Each heartily recommended Daniel Coit Gilman of the University of California.

A native of Norwich, Connecticut, Gilman graduated from Yale and remained on its staff for many years. He played a significant role in the development of the research-oriented Yale Scientific School (later known as the Sheffield Scientific School), taught geography, reorganized the Yale library system, and served as superintendent of the New Haven school system. During that time, he declined several offers from other institutions, including invitations to serve as president of the University of Wisconsin in 1867 and the University of California in 1870. When the University of California made a second offer in 1872, Gilman accepted. However, when the opportunity came to head and develop a new university in Baltimore, Gilman was eager to escape California, where coordinating the loosely organized consortium of collegiate and trade schools had proved to be an administrative nightmare. On May 1, 1875, at the age of 44, Gilman was sworn in as the first president of the newly established Johns Hopkins University.





*Johns Hopkins University*

In the year before the new university opened, Gilman traveled and conferred widely in England and continental Europe. His first priority was the recruitment of a small but distinguished research faculty. He was able to promise unusually high salaries, complete freedom in academic matters, and an environment conducive to original research. Answering his call were mathematician J.J. Sylvester, physicist Henry A. Rowland, chemist Ira Remsen, biologist H. Newell Martin, and classicists Basil Lanneau Gildersleeve and Charles D. Morris.

Gilman was equally determined to recruit an outstanding group of students for Johns Hopkins and to offer them financial support. Each of the first 20 fellows was awarded an annual grant of \$500. One observer remarked, "Probably no expenditure of \$10,000 in American education has ever had so large and enduring a return from the investment." Among the first fellows were historian Herbert Baxter Adams (founder of the American Historical Association), economist Henry Carter Adams, and zoologist W.K. Brooks. (Later scholars included Christine Ladd-Franklin and M. Carey Thomas, both pio-

neers in higher education for women, philosopher and educator John Dewey, philologist Maurice Bloomfield, social scientist Thorstein Veblen, historian Frederick Jackson Turner, and Woodrow Wilson, who went on to become president of Princeton University and of the United States.)

After inaugural ceremonies in October 1876 at which noted English biologist Thomas Henry Huxley spoke, classes were held for the first time in a small cluster of buildings on Howard and Little Ross Streets in Baltimore. The curriculum was centered around teaching laboratories and student research. From its inception, Johns Hopkins University exacted stringent entrance requirements; of the 89 students in the first class only 12 had not completed undergraduate studies elsewhere. These 12 were enrolled in a 3-year undergraduate program; not until 1907 did the university formally adopt a 4-year program for undergraduates. However, the undergraduate school was always an integral part of the university as a whole. Among the most important of the early innovations at the undergraduate level was the institution of the "group system," a set of

seven coherent curricula designed to meet different student needs and goals. The group system aimed at a compromise between the randomness of free elective courses and the conformity of the traditional prescribed curriculum. Concurrently, Hopkins was the first school in America to develop a system of faculty advisors to help the undergraduate deal with the new freedom in an institution with very few rules and regulations. Such freedom of choice resulted in highly creative paths to doctoral degrees as well as the combination of programs such as A.B./M.A. and A.B./M.D. Although the hospital would not open for another decade, the nation's first coherent pre-medical program already was in operation at Johns Hopkins.

The school's emphasis on research meant that a variety of scholarly journals had their origin at Johns Hopkins. In 1877, Remsen launched *American Chemical Journal*, in 1878 Sylvester started *American Journal of Mathematics*, Martin and W.K. Brooks started *Notes from the Biological Laboratory* in 1879, and the *American Journal of Philology* was introduced under the editorship of Gildersleeve in 1880. From the school of historical studies, Henry Baxter Adams produced a series of monographs in 1882 entitled *Johns Hopkins University Studies in Historical and Political Science*. Over the next five years, the university also initiated the *American Journal of Archaeology* and the *American Journal of Psychology*. In conjunction with his founding of the Modern Language Association of America in 1883, A. Marshall Elliott began publishing *Modern Language Notes* three years later. All this activity called for a central publication unit, so in 1879, Gilman laid the plans for the founding of Johns Hopkins University Press. Dating to 1879, the press is the oldest North American university press in continuous operation. The first publication to carry its imprint was Sylvester's *American Journal of Mathematics*.

Through the efforts of two pioneers in medicine, John Shaw Billings and William Henry Welch, the Johns Hopkins Hospital opened on Broadway and Monument Streets in May 1889. Billings, who headed the Surgeon General's Library and would go on to serve as the first director of the New York Public Library, was a genius in design. He recognized that the function of the university and the hospital must be intertwined with the focus of the medical school; the hospital pavilion's design is a testament to his vision and expertise. Welch received his medical training at Yale and then studied in Germany. In 1883 he joined the faculty of Johns Hopkins University as professor of pathology. With his influence, William Osler came to the hospital as physician-in-chief and William S. Halsted came as surgeon-in-chief. Henry Mills Hurd, a psychiatrist and proponent of medical reform, served as the hospital's first superintendent.

While the university and hospital were growing, building plans for the medical school were stymied by lack of funds when the B&O Railroad suddenly ceased paying dividends on its common stocks. A group of young

women who were spearheading Baltimore's educational reform movement came to the board with a proposition. They were M. Carey Thomas, Mary Garrett, Elizabeth King, and Mary Gwynn. Thomas's and Gwynn's fathers were Johns Hopkins University trustees; King's father was president of the hospital. However, it was Garrett who had the financial resources, having inherited a substantial fortune from the former president of the B&O Railroad. The four women met with several members of the board of trustees and pledged \$200,000 for the building of the medical school. After forming the Women's Fund for the Higher Medical Education of Women, they conducted a nationwide fundraising campaign. Garrett made the first contribution of \$10,000 and by October 1890, the Women's Fund had collected \$100,000. This money was offered to the Johns Hopkins trustees with a monumental stipulation: women must be admitted to the medical school. The trustees reacted with dismay; Gilman was particularly adamant that the school not be coeducational. The board made a counter-offer that they believed would deflate the women's efforts: if the women could raise the entire \$500,000 needed to open the medical school, the board would agree to admit women. Ultimately, Garrett contributed an additional \$306,977 to bring the fund to the required amount.

Faced with growing pressure from the university, the hospital, and the community to open the medical school, the board had little choice but to accept Garrett's endowment as well as her additional conditions. Entering students were required to have a bachelor's degree or its equivalent, a knowledge of French and German, and a certain amount of previous medical study. The trustees had planned to institute these standards gradually, but Thomas, Garrett, King, and Gwynn insisted that the requirements be in place immediately. They also stressed strongly that not only were women to be admitted but that they were to be held to the same high standards of admission as men. Although all conditions were accepted on December 24, 1892, Garrett did not completely trust the board. Therefore she added a stipulation that the entire endowment sum would return to her estate if any portion of the conditions were violated in the future.

The Johns Hopkins Medical School entrance requirements were revolutionary, to say the least. At the time, a person desiring to enroll in a medical college did not even have to meet the requirements set by most liberal arts institutions. The school's goals were also lofty. At the university's commencement exercises that June, William Henry Welch, who would serve as the medical school's first dean said:

The aim of the school will be primarily to train practitioners of medicine and surgery. . . . It is not only or chiefly the quantity of knowledge which the student takes with him from the school which will help him in his future work; it is also the quality of mind,



the methods of work, the disciplined habit of correct reasoning, the way of looking at medical problems. . . . The medical school should be a place where medicine is not only taught but also studied. It should do its part to advance medical science and art by encouraging original work, and by selecting as its teachers those who have the training and capacity for such work.

Fourteen men and women made up the medical school's first class when it opened in the fall of 1893. In keeping with the teaching philosophy of the university, the medical students attended laboratories rather than lectures, and original sources were consulted rather than textbooks. The medical school's emphasis on the scientific approach was often a subject of controversy, even among its faculty. William Osler was particularly opposed to its scientific focus and would eventually leave for a chair at Oxford in 1905. In spite of the board's fears, the high admission standards attracted students and instructors with excellent credentials. As a result, the school quickly outgrew its accommodations.

Welch retired as dean in 1898. Osler moved into the office for a year and then Howell took over the position. One of Osler's noteworthy accomplishments was the establishment of the nation's first medical residency program. Another was his seminal work, *Principles and Practice*. After the Reverend Frederick T. Gates, a principal advisor to John D. Rockefeller, read it, he was moved to recommend that the millionaire and philanthropist devote much of his fortune to medical research. The result was the Rockefeller Institute of Medical Research, which opened in New York City in 1904 with Welch as the first board president and a Hopkins graduate, Simon Flexner, as its first director. The Rockefeller-funded General Education Board also made it possible for the medical school to implement its revolutionary and controversial program of offering full-time clinical appointments. In a short period of time, the medical school was also publishing scholarly journals. *The Bulletin of The Johns Hopkins Hospital* made its debut in 1889. Welch founded the *Journal of Experimental Medicine* in 1896; J.J. Abel followed with the *Journal of Pharmacology* in 1909.

Gilman retired as the university's president in 1901 to become the first president of the Carnegie Institution, which was founded the following year by philanthropist Andrew Carnegie in part to support research in biology and chemistry. Years later Baltimore satirist H.L. Mencken (not renowned for offering kind words) wrote of Gilman:

He built no gaudy buildings and he set off no scintillant sky-rockets. But into such building as he had he drew quickly a faculty of the first water, and presently they were hard at work making a university out

of brains. . . . Gilman is seldom heard of today, but he was probably the most genuinely distinguished man, save perhaps Poe, who ever lived in Baltimore.

Gilman was succeeded by Ira Remsen. During Remsen's 11-year term, construction of new facilities for the undergraduate, graduate, and extensions schools was begun on what now constitutes the Homewood campus in north Baltimore. Remsen also enlisted state aid to establish a school of engineering.

The medical school continued to build on its reputation. Abraham Flexner, brother of Simon, published a report entitled *Medical Education in the U.S. and Canada* in 1910. Generally credited with engendering a massive upgrade of medical schools, Flexner recommended that schools use the Johns Hopkins Medical School as a model. During this period the departments of urology, pediatrics, and preventive medicine opened. The latter was initially headed by Perrin Long, who developed the use of sulfa drugs in the treatment of infection. In addition, the Phipps Psychiatric Clinic and the Wilmer Institute of Ophthalmology were founded.

Remsen was followed by Frank Goodnow, who occupied the presidency from 1913 to 1929. Goodnow's two prime interests resulted in failure. A graduate-level institute of law eventually closed in the 1930s for lack both of funding and of an interest in a program that was focused on the societal effects of law rather than the training of lawyers. Likewise, the so-called Goodnow Plan, which called for eliminating the first two years of the undergraduate program, met with opposition and was abandoned. However, in 1916, under Welch's direction, the School of Hygiene and Public Health was established. Here Elmer V. McCollum discovered vitamin D in 1922, and pioneering work in biomedical statistics, preventive medicine, public health administration, and epidemiology was carried out.

Goodnow's successor, Joseph S. Ames, guided the university through the Great Depression. Most of his energy was spent keeping the institution solvent. Ames was followed by Isaiah Bowman, trained as a geographer, who served as president from 1935 to 1948. Bowman was also a consummate fundraiser, bringing in over \$1 million in endowments. During Bowman's term, the Applied Physics Laboratory in suburban Maryland was brought under the university's jurisdiction. Here, during World War II, scientists created a device called the proximity fuse, which allowed anti-aircraft shells to detonate near an enemy aircraft (previously shells would not detonate unless they hit the target); it was used extensively in the war in the Pacific. Researchers at Applied Physics were also involved in the development of the atomic bomb with the Manhattan Project.

Detlov Bronk, president from 1949 to 1953, attempted to revive Goodnow's idea of decreasing the role of the university's undergraduate program, but he also encountered



strong opposition. On the positive side, the department of biophysics was established during his term, and the District of Columbia-based School of Advanced International Studies became part of the university in 1950.

After a short stint by Lowell Jacob Reed (1953 to 1956) during which the campus construction increased, the university installed its most dynamic and well-known president. Milton Stover Eisenhower, brother of President Dwight D. Eisenhower, is credited with tripling the institution's income and doubling its endowment during his 11-year presidency. Building construction flourished with the result that teaching and research space was also doubled. In addition to strengthening the undergraduate program, Eisenhower oversaw the founding of the departments of social relations, statistics, and the history of science. The engineering and philosophy faculties were merged with the arts and sciences division, the Evening College instituted a program in the history of ideas, and the medical school introduced an accelerated course of study.

Eisenhower's popularity contrasted sharply with the turbulent relationship between his successor, Lincoln Gordon, and the university population. Gordon, who served from 1967 to 1971, was faced with the campus unrest that so characterized the time. However, the upheaval was not without positive results. The university increased its involvement in the local community and a Center for Metropolitan Planning was formed. Women were admitted to the undergraduate program for the first time. Nevertheless, Gordon felt pressured to resign. Eisenhower returned for a ten-month period until a new president could be found.

Steven Muller was the university's provost and vice president when he was tapped to take over the president's office in February 1972. The first person to serve simultaneously as president of the university and of Johns Hopkins Hospital, Muller was particularly adept at fundraising. Under his leadership, a 1976 campaign surpassed its \$100 million goal; another in 1985 reached its \$450 million goal one year early. During his term, the university took over the administration of Baltimore's renowned music school, the Peabody Institute.

In 1990, Muller was succeeded by William Chase Richardson, who brought experience in public health to his presidency. During his five-year term, Richardson's

greatest challenge was facing declining enrollment and a decrease in federal aid.

At the close of the twentieth century, the university boasts eight academic divisions: the School of Arts and Sciences, the G.W.C. Whiting School of Engineering, the School of Continuing Studies, the School of Medicine, the School of Hygiene and Public Health, the School of Nursing, the Peabody Institute, and the Paul H. Nitze School of Advanced International Studies. The university serves approximately 16,000 full-time and part-time students on three campuses in Baltimore, one in Washington, D.C., and facilities throughout Baltimore, and in China and Italy. On the main campus in the Homewood neighborhood of Baltimore, 3,400 full-time undergraduate students and 1,300 full-time graduate students attend classes. The university receives more federal research and development funds than any other university in the United States while the School of Medicine is first in the receipt of extramural awards from the National Institutes of Health. The School of Hygiene and Public Health is also first in research support from the federal government among all public health schools.

**Further Reading:** In-depth narratives of the early years of Johns Hopkins University can be found in *A History of the University Founded by Johns Hopkins* by John C. French (Baltimore: Johns Hopkins University Press, 1946) and *Pioneer: A History of the Johns Hopkins University 1874-1889* (Ithaca, New York: Cornell University Press, 1960) by Hugh Hawkins. For a treatment of recent years, see *Johns Hopkins: Portrait of a University* by John C. Schmidt (Baltimore: Johns Hopkins University, 1986). Also recommended are selected biographies of some of the men connected with the Johns Hopkins University, Hospital, and Medical School such as *The Life of Daniel Coit Gilman* by Fabian Franklin (New York: Dodd Mead, 1910), *Milton S. Eisenhower: Educational Statesman* by Stephen E. Ambrose and Richard H. Immerman (Baltimore: Johns Hopkins University Press, 1983), and *William Henry Welch and the Heroic Age of American Medicine* by Wimon Flexner and James Thomas Flexner (Baltimore: Johns Hopkins University Press, 1941, reprinted 1993).

—Mary McNulty

# KEIO UNIVERSITY

## (Tokyo, Japan)

- Location:** At two campuses in Tokyo (Mita and Shinanomachi) and three in neighboring Kanagawa Prefecture (Hiyoshi, Yagami, and Shonan Fujisawa); associated with three hospitals, in Tokyo, Mie, and Shizuoka Prefectures, and with schools for younger students in Tokyo, Kanagawa, Saitama, and New York State.
- Description:** The oldest private university in Japan, first established in an academy founded in 1858 by the prominent intellectual Fukuzawa Yukichi.
- Information:** International Center  
Keio University  
2-15-45 Mita  
Minato-ku, Tokyo 108  
Japan  
(3) 3453 4511

**Keio University** (Keio Daigaku in Japanese) is the largest and best-known section of the Keio Gijuku corporation, an educational body which also operates nine schools for younger students, a two-year nursing college, and three hospitals. Since university and corporation alike originated in a private academy founded in 1858 (though each was formally established somewhat later), Keio plausibly claims to be the oldest private educational institution remaining in Japan. The development of the Keio group of schools over the following 14 decades or so has kept pace with the enormous changes in Japanese society over the same period; it also has largely kept faith with the principles laid down by their founder, Fukuzawa Yukichi, who hoped that his work would help students to realise their individual potential and to become leaders in improving their society.

Fukuzawa was born in 1835, the son of a samurai (warrior) who served as an official of the Nakatsu domain in what is now Oita Prefecture, on the southern island of Kyushu. At the time of his birth Japan had been controlled for more than 200 years by the Tokugawa dynasty of shoguns, who directly governed around one-fourth of the country and closely supervised the daimyo, the hereditary provincial lords whose domains covered the rest of Japan. Although their feudal order partly depended on the exclusion of almost all European people and books, which might subvert it, during the eighteenth century Japanese scholars had begun to be permitted to study techni-

cal and scientific works from overseas. By the 1830s there was a rich tradition of *rangaku*, or Dutch studies, so called because the texts which they used were mostly in Dutch, the language of the only European state which had commercial relations with Japan. It was to this tradition that Fukuzawa turned when he left home, in 1854, to study gunnery in Nagasaki for one year and then to study Dutch, anatomy, physics, and other sciences at a private academy in Osaka.

After three years in that city he moved once again in 1858, this time walking all the way to Edo (now Tokyo), where the lord of the Nakatsu domain had an estate, at Teppozu (now Akashi-cho). There Fukuzawa founded his *gijuku*, or academy, using domain funds to train his fellow-officials in Dutch, in a single room of the domain's *yashiki*, the large building which was both its lord's Edo residence and its government's office for relations with the shogunate. However, a visit to the foreign merchant community in Yokohama, established only four years earlier after the Tokugawa shogunate had been pressured into opening relations with other western powers, convinced him that English would be a more useful language, and three years of travel as a member of the first official Japanese delegations to the west confirmed that conviction.

On his return to Japan in 1863 Fukuzawa reorganised the academy at Teppozu as a school of English and also prepared the first of several editions of his influential book *Seiyo Jijo* (*Conditions in the West*), published in 1866. In a later book, *Gakumon no susume* (*Encouragement of Learning*), published in serial form between 1872 and 1876, he argued that *jitsugaku*, "practical learning" of the kind conducted in his academy, was superior to traditional Confucian learning, which made its students into "rice-consuming dictionaries," unable to satisfy the needs of everyday life. Through these and other writings, as well as through *Jiji Shinpo*, the newspaper he founded and edited, Fukuzawa popularised the phrase which he himself had coined—*bunmei kaika*, "civilisation and enlightenment"—to encapsulate the material and spiritual advantages that in his view the west already possessed and that the Japanese should try to acquire through such education.

Fukuzawa found a large and enthusiastic audience for his views, especially after the Meiji Restoration of 1868, when the Tokugawa shogunate was overthrown and replaced by a new regime largely composed of relatively young, low-ranking samurai who like Fukuzawa had visited the west, had witnessed the decline of China, Japan's historic exemplar, and had become determined to trans-



*Keio University*



form Japan. Instead of accepting their invitations to join them in public office, Fukuzawa preferred to continue teaching at his *gijuku*. In 1868 he used the proceeds from his writings to make himself and his school financially independent of the Nakatsu domain (which, like all the other domains, was to be abolished only three years later) and gave the school the name “Keio,” commemorating the fact that in Japanese terms 1868 was the fourth year of the Keio era (though it became the first year of the Meiji era following the change of regime).

It was characteristic of Fukuzawa that he went on teaching throughout 1868, even when all other schools in the city had been closed and battle was raging at Ueno, in northern Tokyo, between the new imperial army and supporters of the Tokugawa family. May 15, the date on which the Battle of Ueno began, is still marked every year at Keio by a public lecture and other events honoring Fukuzawa’s dedication to scholarship, which is also expressed in the Keio Gijuku’s Latin motto, adopted about this time: *Calamus Gladio Fortior* (“the pen is mightier than the sword”).

In 1871 Fukuzawa relocated the Keio Gijuku to a hill-top site in Mita, in southwestern Tokyo, which is still part of the university’s main campus. With support both from the city council, whom Fukuzawa had advised on reorganising the police force, and from the leading government minister Iwakura Tomomi, Fukuzawa was able to persuade the lord of the Shimabara domain to sell the land to him, and the new campus remained his personal property until 1898. There, as at Teppozu, he continued to put the teaching of English first, but he supplemented it with introductory courses in both sciences (mathematics, physics, and chemistry) and humanities (geography and history), which prepared the approximately 100 students for more advanced study. Even so, the *gijuku*’s courses provided only the equivalent of a contemporary high-school education, and many of its alumni went on to further study at the government’s Imperial University (now the University of Tokyo) before beginning their careers.

In these early years Keio Gijuku was run on a cooperative basis, with older students helping to teach first-year students and all students taking part in administrative and maintenance work. Fukuzawa carried on innovating, for example by adding a *yochisha*, an elementary school, to the *gijuku* in 1874, and, after coining the word *enzetsu* to translate the English word “elocution,” having an Enzetsukan, an Elocution Hall, erected on the campus in 1875. This building, which is now an Important Cultural Property, is believed to have been the first purposefully built lecture hall in Japan.

Keio’s students soon acquired a reputation for defying tradition. In 1885, for example, it was reported (in Fukuzawa’s own newspaper) that more than half wore western clothing rather than Japanese, and students became notorious for regularly eating beef, which was forbidden by Buddhist principles, although even they preferred to keep

visits from the local butcher secret and to greet his arrival with the traditional knocking of flints, a ritual act believed to avert evil.

By the 1880s Keio stood alongside what are now Waseda, Meiji, and Chuo Universities as one of the leading private academies in the Japanese capital, with Fukuzawa and his colleagues providing training for men (but not yet women) entering careers in business and the professions, notably law. From 1887 those colleagues included three American scholars: the legal expert John Henry Wigmore, the literary critic William S. Liscome, and the economist Garrett Droppers. They had been recommended to Fukuzawa by Charles William Eliot, president of Harvard University, and were paid out of funds gathered by A.M. Knapp, a missionary of the American Unitarian Church. They all taught exclusively in English, providing college-level courses, initially lasting three years, in law, economics, and literature to around 60 students a year.

Their college-level section of the *gijuku* formed the basis of the Keio Gijuku Daigaku Senmon Gakko, an official designation, meaning “Keio Academy University-level Specialist School,” which was conferred in 1890. This was not yet fully equivalent to the status of degree-giving university, which was then reserved for publicly owned institutions, but was nevertheless important, both as a sign that Fukuzawa’s efforts were appreciated by the ruling oligarchy and as a justification for raising further funds for Keio Gijuku from the well-laced alumni who had already begun to support it. Many of them, after all, worked in institutions—the examination-based civil service, the westernised legal profession, large industrial enterprises—which had not existed when Fukuzawa started teaching in 1858 but which he had advocated through his teaching and writing. Largely due to their support, the college remained open in spite of a drastic but temporary fall in student numbers between 1890 and 1895, which led some of the staff to suggest abandoning the college.

In 1898 the Daigaku Senmon Gakko was made organisationally separate from the rest of the *gijuku*’s activities and converted into a five-year college when Fukuzawa created a single Keio Gijuku corporation. The new body, a mechanism for Fukuzawa to pass on his legacy to a new generation, took over the ownership of the Mita campus and supervised the elementary school, the high school, and the university as distinct entities, which shared a single campus, a common academic calendar, and Fukuzawa’s basic principles. In the same year the corporation established the university’s fourth faculty by separating political science from law. At Fukuzawa’s death in 1901 he and his colleagues could look back with understandable satisfaction over 43 years of academic and literary achievements that had contributed to the transformation of their country, and especially of their city, almost beyond recognition.

Fukuzawa's colleagues maintained his program of westernising innovation after his death. Occasionally, this took forms that he might well not have recognised, such as the university's rugby football club, the oldest in Japan, which was founded in the year of his death by Edward Bramswell Clarke, a Briton who taught English at Keio, or the annual baseball games between Keio and Waseda, another private university in Tokyo. The baseball games first were played between 1903 and 1906 but have become a nationally popular event since their revival in the 1920s. But the general trend was to expand and improve the Senmon Gakko's academic provision, partly in order to prepare for recognition as a university, but also to secure its long-term future as an independent institution. To begin with, only 11 days after Fukuzawa's death the corporation assisted in founding an *Ijikai*, a supporters' society mainly composed of alumni, which has given Keio crucial financial assistance over the years (it now has nearly 25,000 members, many in prominent positions in public life and in business). The first projects the society helped to fund included the establishment of graduate schools within each faculty in 1906, among the first in any private university in Japan; and the building, between 1908 and 1912, of what is now the Old Library, a large red-brick structure, with an octagonal tower, which has since been designated an Important Cultural Property. Unusual for a university library anywhere, it has always been open to the general public as well as to staff and students.

In 1917 Keio expanded beyond Mita for the first time, with the foundation of a medical school at Shinanomachi, also in Tokyo. This school was to become closely associated with the main university hospital, founded three years later on the same Shinanomachi campus, and with a nursing college, all supervised by the first dean of the school, Kitasato Shibasaburo, a pioneering microbiologist who had been a close friend of Fukuzawa's and whose private research laboratory had been founded with funds provided by Fukuzawa himself. (In addition, in 1974 the school absorbed what became the Ise Keio Hospital in Mie Prefecture; it is also responsible for training at the Tsukigase Rehabilitation Center in the spa town of Izu-Yugashima, in Shizuoka Prefecture.)

In 1920 Keio was among the first of the private academies to be granted full university status, as Keio Gijuku Daigaku. It now had three faculties once again—law, literature, and economics, as in 1890—for the political science department was absorbed back into the first of these while retaining a separate curriculum. Physical expansion continued with the opening in 1934 of the university's Hiyoshi campus in Kanagawa Prefecture (the area, dominated by Yokohama, which lies to the west of Tokyo). This campus now is used for all general courses for first- and second-year undergraduates and to house the Graduate School of Business Administration. In 1944 an engineering faculty was created through the absorption of the

Fujiwara Institute of Technology, which had been founded in 1939 by Fujiwara Ginjiro, a Keio alumnus, using facilities at the Hiyoshi campus.

By the time that Fujiwara, a paper industry magnate, opened his institute, Japan had already been at war in China for eight years, and, through its alliance with Nazi Germany and Fascist Italy, was heading toward confrontation with the United States and its allies. The university's activities continued on all three of its campuses for the duration of the Pacific war (1941–45) until they were severely disrupted by the firebombing of Tokyo in 1945 and then, after Japan's defeat, by the transfer of most of the Hiyoshi campus to the Allied occupation authorities. However, under the terms of the liberalising education reforms sponsored by those same authorities, the Keio Gijuku corporation was revived and reorganised, so that from 1948 it was able to retrieve the Hiyoshi campus and to reopen its elementary school, its high school, and its university, now known as Keio Daigaku and open to both men and women. In the same year it introduced correspondence courses as a fully accredited alternative to regular teaching on campus.

Since 1948 Keio University has regained its position as one of the leading universities in Japan. Academic diversification has continued. For example, its library school, opened in 1950 with assistance and advice from the Allied occupation authorities, and endowed by the Rockefeller Foundation in 1951, has helped to modernise information systems in Japan; its faculty of business and commerce, established in 1957 to mark the centenary of the founding of Fukuzawa's *gijuku*, has since gained renown for consistently producing the largest number of successful candidates to become certified public accountants. Its business school, set up in 1962 on the model of its counterpart at Harvard and renamed the Graduate School of Business Administration in 1978, offers prestigious master's and doctor's degrees as well as non-degree courses; and the 1981 reorganisation of the engineering faculty as a faculty of science and technology has permitted an expansion of its teaching and research in these fields.

In addition Keio has acquired three more campuses. The Yagami campus, next to the Hiyoshi campus in Kanagawa Prefecture, was established in 1972 to house what has since become the science and technology faculty and its graduate school, and in 1990 two new faculties, of policy management and environmental information, were opened on a fifth campus at Shonan Fujisawa, also in Kanagawa Prefecture. The buildings at this site are equipped with computer networking facilities, allowing the integration of courses between the two faculties and the encouragement of language learning. Most recently, in 1990, the university has created the Keio Academy of New York in Harrison, New York, a high school for both Japanese and non-Japanese young men and women between the ages of 15 and 18, who can apply for automatic entry to the university after gradua-



tion from the academy. Meanwhile in Japan the Keio Gijuku corporation now controls a total of four senior high schools and three junior high schools in addition to its original elementary school, its nursing college, a foreign-language school, and the university. Among the university's students—roughly 26,500 undergraduates, 3,000 postgraduates, and 15,000 students studying through correspondence courses—there are many who have previously studied at one or more of the associated Keio institutions.

Shortly before his death Fukuzawa Yukichi summed up his outlook in a piece of calligraphy, preserved at the Mita campus: *Dorkuritsu Jison Gei Shinseiki* (which may be translated as “Welcoming the new century with independence and self-respect”). Approaching another new century, the university he founded, owned, and closely supervised is still perceptibly influenced by his principles. For example, its pioneering use of interactive technology at the Shonan Fujisawa campus is in the spirit of the enthusiasm for “civilisation and enlightenment” which he, his university, and many of its alumni have done much to encourage, while its programs for

academic exchange and cooperation with 38 universities in the United States, Britain, China, Germany, and other countries are an expression of a strong and widespread commitment to internationalism in a country all too often misrepresented as wholly inward-looking. Just as Fukuzawa's original *gijuku* was at the forefront of Japanese education in the 1850s and 1860s, so now Keio Daigaku is among the most prestigious and successful of Japanese universities.

**Further Reading:** Eiichi Kiyooka's English version of *The Autobiography of Fukuzawa Yukichi* (Tokyo: Hokuseido Press, 1934), a classic of modern Japanese literature, is available in a revised edition (New York and London: Columbia University Press, 1966). Carmen Blacker's *The Japanese Enlightenment: A Study of the Writings of Fukuzawa Yukichi* (Cambridge: Cambridge University Press, 1964) is an interesting survey of his main interests and activities.

—Patrick Heenan



# KYUSHU UNIVERSITY

## (Fukuoka, Japan)

<b>Location:</b>	Fukuoka, Japan, one and a half hours southwest of Tokyo by air.
<b>Description:</b>	A national university enrolling approximately 15,000 students in undergraduate, graduate and professional schools.
<b>Information:</b>	Admission Division, Student Bureau Kyushu University 6-10-1 Hakozaki Higashi-ku Fukuoka 812-81 Japan

The university is situated in the ancient port city of Fukuoka on Kyushu, southernmost of the four mainland islands in the Japanese archipelago. Kyushu has been for centuries a crossroads of cultures and was Japan's first point of contact with Chinese, Korean, and European civilizations. Today a city of over 1.2 million people, Fukuoka is the center of government, commerce, and education on Kyushu. Kyushu University is the largest of the city's 11 four-year colleges and universities.

Kyushu University was founded in 1911 as Kyushu Imperial University, the fourth government-sponsored university created under the educational reforms of the Meiji Era. Today it is one of 98 national universities operating under the jurisdiction of the Ministry of Education, Science and Culture.

During its first eight years, Kyushu University consisted of a faculty of engineering and a faculty of medicine, the latter created by incorporating the respected Fukuoka Medical College, founded in 1903 by Dr. T. Omori. The university's first graduation was held in the summer of 1912.

The faculty of medicine provided the nucleus of what would eventually become the largest center for medical education, research, and clinical care in western Japan. In similar fashion, the faculty of engineering, together with the faculty of agriculture (established 1919) and law and letters (established 1924) formed the broad base upon which future university programs would be built.

During these years, growth occurred in a number of directions. Buildings were constructed and the number of faculty in all departments increased. Among the new facilities were a marine biological station, orthopedic surgical workshop, roentgen and microscopic-photography laboratory, and a fishery research laboratory. A

building was constructed for the faculty of agriculture, whose resources also included a university farm and the university forests. The forests, acquired beginning in 1912, offered an invaluable resource for teaching and research. Today four remain, including three on Kyushu and one on Hokkaido, Japan's northernmost island, totaling 18,000 acres.

During its first decade Kyushu University attracted a number of faculty members from among the relatively small number of Japanese scholars who had studied overseas. Public demand for higher education at that time was intense, with graduates going on to fill responsible posts in the civil service and other fields.

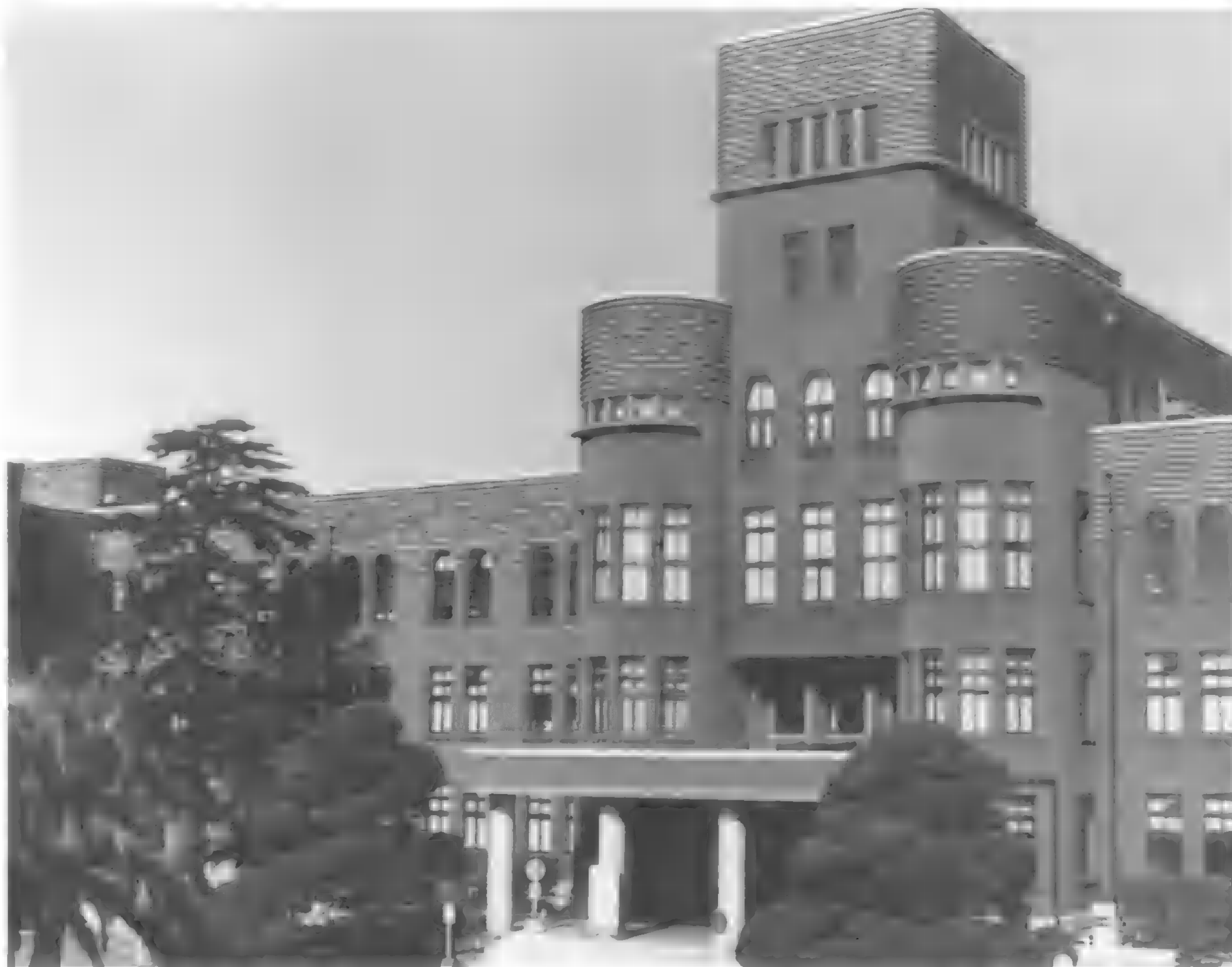
In 1920 the first university library was created, staffed by a director and several library assistants, and in 1925 the position of university librarian was established. Also in 1925 construction was completed on buildings to house the faculty of law and letters, established two years earlier. The next year saw the retirement of president Bunji Mano and the appointment of Gintari Daikuhara to succeed him.

During these years, affiliated research institutes and laboratories were established at various sites on the island to support the main work of the university. These included the Institute of Balneotherapeutics, created as part of the medical school in 1931 in the town of Beppu, known throughout the world for its therapeutic hot springs; Amakusa Marine Biological Laboratory, established in 1928 (and later attached to the faculty of science) in Tomioka, a small seaside town about 120 km. south of Fukuoka on the largest of the Amakusa Islands.

In 1939 a number of departments, including physics, chemistry, and geology, were consolidated in a new faculty of science. A department of mathematics was added in 1942.

Major changes occurred following World War II. Post-war educational reforms included the National School Establishment Law, which called for one national university to be created in each prefecture, or national administrative division. The word "imperial" was deleted from the names of existing universities, and Kyushu, like its sister institutions, adopted a democratic system of governance.

Today, the president is elected to a four-year term by the university's professors and assistant professors from among their number and may be reelected to one additional term. Under the president, a university council, made up of the deans from each faculty, directors of the library system, hospitals, and other organizations attached to the university, considers and approves "all



*Kyushu University*

important affairs” of the university. In addition, each faculty chooses a dean from among its members,

Post-war reorganization created eight distinct faculties at Kyushu: letters, education, law, economics, science, medicine, engineering, and agriculture. The length of the undergraduate course of study was increased from three years to four, with the initial portion composed of general education.

The graduate school was reorganized in 1953 to include the following divisions: letters, education, law, economics (previously within the faculty of law and letters), science, pharmacy, engineering, and agriculture. Added later were the divisions of medical science (1953), dental sciences (1974), and mathematics (1994).

In addition, two interdisciplinary graduate programs—engineering sciences (1979), and social and cultural studies (1994)—emphasized cross-fertilization and the “sideway

relation” between established fields of study and their related boundary areas.

By 1956 the university had almost 5,500 graduate and undergraduate students enrolled in its eight faculties and seven research institutes and departments, covering most fields of natural and social sciences and humanities. Its physical size had grown to 384 acres.

The library has grown to more than 3 million volumes, including more than 1.6 million in Japanese and Chinese and almost 1.4 million in other languages. It includes the central library, medical library, Ropponmatsu Library, and the libraries of the faculties and research institutes. The university publishes 83 journals, as well as the quarterly *Kyushu University Library Bulletin*.

As in the past, Kyushu serves as a gateway for the international exchange of people and ideas. Since its founding, the university has accepted foreign students, mostly from

Asia and primarily in medicine, engineering, and agriculture. An International Student Center was established in 1985 to provide Japanese language and cultural training. In addition, the international student residence, a community building, and a living facility for foreigners engaged in research or teaching at the university help support the international exchange of ideas and culture.

Cooperative agreements with 26 universities in Asia, Europe, Canada, the U.S., and Brazil, and many more individual faculty initiatives, enable hundreds of faculty to teach, conduct research, or study abroad.

The university's campuses include the main Hakozaki

campus and hospitals campus (including ■ 1,300-bed hospital), both in the older, eastern section of Fukuoka; Ropponmatsu campus in the southwestern part of the city (which consists of the Graduate School of Social and Cultural Studies and the Institute of Languages and Cultures); and Chikushi campus in the southern suburbs (graduate school of engineering sciences and various institutes and centers). There is, in addition, ■ 140-bed hospital campus at Beppu.

—Bette Noble



# LAVAL UNIVERSITY

## (Quebec, Canada)

<b>Location:</b>	Most facilities are on the outskirts of Quebec City, with some schools inside the city and at Ste. Anne de la Pocatière.
<b>Description:</b>	The oldest Francophone institution of higher education outside Europe; a secular, multi-faculty university with about 25,000 full-time and 11,600 part-time students.
<b>Information:</b>	Université Laval Cité Universitaire Quebec, PQ G1K 7P4 Canada (418) 656-2131 Fax (418) 656-2809

Laval University (L' Université Laval in French), formerly the Grand Séminaire de Quebec, has been at the center of Francophone culture in North America for more than 330 years and has changed as the culture has changed. From 1663 to 1852, when it enjoyed a monopoly of higher education throughout what is now the province of Quebec, it was the principal guardian of the conservative French Catholic tradition, which long survived the conquest of New France by the British. From 1852 to 1970, endowed with charters both from the British monarchy and papacy, it developed into a more diverse and complex institution, adapting to the growth of science and industry and coping with competition from rival universities, while still transmitting a distinctive Catholic culture to its students, many of whom went on to leading positions in the church, and in business and politics. Since 1970 it has operated under a provincial charter, losing much of its exclusively Catholic identity while increasing its commitment to maintaining Francophone culture—just as the province itself has.

The university is named for Monsignor François-Xavier de Montmorency-Laval de Montigny, more commonly known as Bishop Laval, one of the most important figures in the history of Francophone Canada. He was a loyal subject of King Louis XVI but, as a Jesuit, he was also a devoted follower of the pope, from his ordination as a priest in 1647 onwards. While it would probably be anachronistic to infer that he was conscious of any great contradiction between these two loyalties, nevertheless, like Jesuits in other Catholic countries, he was clearly able and willing to defy secular authority for the sake of

the faith, as became apparent after he was sent in 1659 to New France.

Laval arrived in Quebec, the capital of the colony, armed with orders from the royal court to manage the religious affairs of the settlers and the natives, but he was also made an honorary bishop, as well as vicar apostolic of New France, by the pope. He soon proved his independence of the secular power by objecting to their turning a blind eye to the sale of alcohol to the natives and by securing the replacement of the corrupt governor. But his most lasting contribution to the developing life of the colony was the foundation in 1663 of the Séminaire de Québec, which absorbed a small Jesuit college established in 1635. The seminary intended to serve a dual function as both a home for elderly priests and the colony's only training center for their younger successors, and was to be financed by tithes from parishioners. It was located in a magnificent building, next to the bishop's palace and the cathedral of Notre-Dame and close to the royal fortress.

Laval directly contributed more than any other individual to the formation of a Francophone Catholic island in the North American sea of English and Spanish. The parish priests trained at the Séminaire played a crucial role until as recently as the 1960s as keepers and transmitters of French Catholic tradition. Laval went on to become the first bishop of Quebec, in 1674, holding office directly from the pope rather than from any French religious superior. This factor also would prove significant in the development of Quebec, providing the formal basis for the self-confident activism of a church increasingly staffed by priests born and raised in the province and not afraid to stand up to both French governors and their eventual British successors.

Laval himself retired to the Séminaire in 1688 and, after another eight years as bishop, died there in 1708. Over the half-century between his death and the British conquest of New France, the Séminaire remained the only institution of higher education in the colony. Perhaps inevitably, it expanded somewhat beyond Laval's strictly theological aims, to offer some limited teaching in the classics and humanities to the sons of those among the landowning elite who did not wish, or could not afford, to send the students to France. Most of the student prepared for entry to Laval by attending *collèges classiques*, privately endowed schools for the sons of the wealthy which were also staffed by priests.

In 1754 the French colonial governor moved from Quebec to Montreal; five years later the British arrived at the former capital, taking over the city after a battle on the Plains of Abraham at its edge, and in 1763 the French



*Laval University*

royal court, finally accepting the loss of the colony, called home all its officials and many other leading members of the settler society. Throughout this upheaval the Catholic church, based at Notre-Dame cathedral and the Séminaire, maintained the autonomy that Bishop Laval had won for it. Its priests continued to minister to the 50,000 or so Francophone settlers who remained and their posi-

tion in the life of the province was confirmed when the British parliament passed the Quebec Act in 1774, which guaranteed the religion and language of the Francophones but excluded them from official posts and the learned professions.

In a largely rural society, increasingly estranged from the commercial outlook and ethnic diversity which came

to characterize Montreal, the largest city in the province, its rival Quebec City and the Séminaire within it, took on more importance than ever. The priests trained there carried to the countryside not only the strict, somewhat puritanical version of Catholicism which had been favored in pre-revolutionary royal France, but also the political quietism that accompanied it. They helped to ensure, for example, that there was little protest when New France was divided into Upper and Lower Canada in 1791 and that the rebellion of the *Patriotes* against British rule, in 1837, was almost entirely limited to Montreal, where it was swiftly defeated. Indeed, after the French Revolution of 1789, which led to the abolition of the monarchy and the disestablishment of the church there, the Séminaire and the *collèges classiques* alike welcomed a number of priests exiled from France, whose conservative outlook reinforced the tradition already established in the schools.

Since the Catholic Church in Lower Canada—roughly equivalent to modern Quebec—was conspicuously obedient to the British “powers that be,” the Séminaire was not merely permitted but positively encouraged to expand its horizons, as the initial ban on Francophone admission to the professions was reduced and then abandoned. The people of Quebec City, the country districts, and the French-speaking areas of Montreal obviously needed lawyers and doctors who could speak their native tongue, and the church was understandably anxious to supervise their training if it could. At the same time the secular authorities appeared to favor a policy of Anglicization. The suppression of the Society of Jesus by the papacy had led to the transfer of the Jesuit estates in Lower Canada to the provincial legislature, which voted in 1801 to apply the revenues from the lands to providing instructions, in English only, through new schools and a university. Thus began decades of political and legal controversy, culminating in 1843 in the opening of what is now McGill University in Montreal, an Anglophone institution which, from the outset, has attracted many Francophones seeking access to the dominant culture of what was British North America.

The Francophone community took a long time to respond to what many of its intellectuals perceived as a serious threat to their culture. The mostly urban Anglophones, led by wealthy and powerful individuals, perhaps found it easier than most Francophones did both to accept that higher education would have to be expanded as industrialization progressed, and to gather funds to pay for it. In any event, the province’s first Francophone university was established in 1852 by the simple (and cheap) expedient of renaming the Grand Séminaire, the section of the Séminaire de Québec devoted to training students, as L’Université Laval. (The Petit Séminaire, the residence for retired priests, continued as a separate institution.)

The British imperial authorities approved of the new university probably because it had become obvious that transforming the Francophone majority into Anglophones was neither practically feasible nor politically

desirable. They arranged for Laval to receive a royal charter from Queen Victoria in December 1852, but, recognizing that the Catholic Church was unwilling to surrender control, they included in the charter provision for the bishop of Quebec to be the university’s visitor (a post peculiar to universities created in the British tradition, in which a distinguished figure acts as a kind of court of final appeal in academic disputes).

Laval initially had a unique structure, designed to preserve the established system of Francophone education. Its arts faculties was composed of the *collèges classiques*, which was now affiliated to the university and provided undergraduate teaching as preparation for the bachelor’s degree. Holders of that degree were then admitted to studies in one of the other three faculties: theology, civil law, or medicine. This system was not affected by the expansion of the arts faculty in 1860, when specialized schools of agriculture and pharmacy were added.

In 1867 the province of Quebec joined the new Dominion of Canada, on condition that the new federal authorities take over the British guarantee that its distinctive heritage of Catholic faith and French language would be protected, specifically by making education a provincial rather than a federal matter. It proved to be impossible to implement a secular education system open to all, so the province continued with its existing division between an Anglophone Protestant system and a Francophone Catholic system, each administered by private bodies but subsidized from the public purse. This was obviously a recipe for continued controversy, both between the two language communities and within them. Thus, for example, in 1873, after McGill University succeeded in obtaining government funds to open an engineering school, it was widely expected that Laval would accept funds for a Francophone equivalent. Instead, the university turned down what it said was an inadequate offer from a government which it did not want intervening in its affairs, and the money went to the Montreal Catholic School Commission instead.

The university went even further. Jealous of its historic monopoly, it campaigned against a proposal to establish another Francophone university, to be located in Montreal, even though the Catholic Church authorities supported it. In 1876 Pope Pius IX intervened in the dispute, which was becoming an embarrassment, by issuing a pontifical charter for Laval. This charter made changes in Laval’s formal relations with the church, by conferring the power to grant full theological degrees and making the bishop of Quebec its apostolic chancellor, but it also required Laval to create its own branch in Montreal, a compromise which the university evidently found acceptable. With the arts faculty reorganized as a wholly internal body—although it still recruited most of its students from the *collèges classiques*—Laval could now begin to compete directly with the “godless” and Anglophone faculties of McGill in both major cities of the province.



By 1901 Laval, on its two sites, had a total of 1,175 students, compared to 1,208 (still including many Francophones) studying at McGill. Yet nearly 35 percent of Laval's student body were preparing for the priesthood and almost all the rest were in the law and medicine faculties, apart from just 39 individuals studying sciences, in contrast to McGill, which was already one of the leading centers for scientific research in North America and whose alumni dominated the commercial and political life in the province. Laval did make some adjustments to the industrial and commercial transformation of Quebec, by creating a school of surveying in 1907 and a school of forestry in 1910, both located in Montreal, but after more than 50 years as a university it was still unable—mainly because its conservative Catholic decision makers were unwilling—to offer the full range of academic disciplines.

By 1915 the long-standing mutual suspicion between the Anglophone education sector, led by McGill, and the Francophone schools, dominated by Laval, had worsened as it became clear that the latter's traditionalism was becoming an obstacle to further growth. McGill had an endowment of 6.7 million Canadian dollars while Laval had only \$15,000 as its endowment, an indication that, as elsewhere in the western world, universities in Quebec would prosper if, and perhaps only if, they offered scientific and vocational courses which would attract government and business funding and increase the numbers of students. Once again the funding and content of education became a burning political question. The controversy contributed to the decision to separate the original Laval University in Quebec City from its Montreal branch. An independent corporate body, l'Université de Montréal, was established in 1920, absorbing a number of vocational schools in what was (as it is today) the largest city in Quebec.

The provincial government, well aware that McGill enjoyed a better academic reputation and stronger finances than its Francophone rivals, was nevertheless compelled to be evenhanded, and in 1920 gave \$1 million each to McGill, Laval, and the new university in Montreal. Laval, now entirely based in Quebec City, was saddled with a reputation for being more conservative, or even reactionary, than its former affiliate and now rival. It decided to supplement the government's grant by launching its first public subscription drive in the same year, perhaps partly to raise its public profile but more concretely to finance a new science faculty, centered on a new school of chemistry, that could compete directly with the two universities in Montreal.

Meanwhile the government pressed ahead with reforms of both educational systems, so that by 1923 significantly larger numbers of students were staying on at school and then going on to higher education. Laval joined with the other institutions—universities, colleges, and technical schools alike—to respond to rising

demand by expanding and diversifying. Within ten years it had established seven more specialized schools within the arts faculty—forestry in 1920 (replacing the school in Montreal); letters and science in 1921; music and nursing in 1922; philosophy in 1926; and social sciences in 1930. By 1929 the two Francophone universities between them had 3,857 students, among whom the proportion of theology students had fallen to about 17 percent, while more than half the total were enrolled in science or technology courses. Although almost all the former were at Laval and the majority of the latter were at Montreal, nevertheless these combined figures do suggest that the composition of the university had significantly shifted within just a generation.

Between 1936 and 1941 Laval University was reorganized once again. Apart from the music school, which remained within the art faculty, the specialized schools were transformed into independent faculties—thus incidentally creating Canada's first social sciences faculty—and in 1939–40 the graduate school was established for advanced study and research. Even after reforms and innovations had taken effect, however, the two Francophone universities still suffered from a relative lack of applicants, unlike McGill, which continued to expand and even began to attract French-speaking students. The main reason for this difference was that the publicly funded Catholic school system still did not provide sufficient education to prepare students for university, a function which was still almost exclusively performed by the expensive and exclusive *collèges classiques*.

Laval University, still balancing the requirements of tradition with the demand for scientific and professional training, was now among the leading universities in Canada, receiving wider recognition when Louis St. Laurent, who had both graduated from Laval and taught in its law faculty, became Canada's most prominent Francophone politician. As a member of Mackenzie King's Liberal government from 1942 he gave vocal support to the imposition of conscription for service overseas during World War II. Then, as prime minister himself from 1948 to 1957, he took Canada into NATO, sent Canadian troops to permanent posts in western Europe, and introduced hospital insurance and equalization payments between the richer and poorer provinces—in the face of strong opposition from Quebec's provincial government.

St. Laurent also helped to launch Laval's second public subscription drive in 1948. In response to the sharp rise in the numbers of students and applicants, which threatened to place excessive strain on the resources available in the narrow streets and fragile buildings of the old Latin Quarter of Quebec City, the university authorities sought funding for a construction program, started in that year, aimed at unifying the university on a single 190-hectare campus, known as the Cité Universitaire, located in the suburb of St. Foy on the Plains of Abraham. (Although the Cité Universitaire is now its

main site, the university has retained ownership of the Séminaire building in the Latin Quarter, within the walls of Old Quebec, the only fortified city remaining in North America. The building forms an integral part of the World Heritage Site, protected by federal and provincial conservation laws; the museum inside it, which is affiliated with the university, holds one of the leading collections of historic objects in Canada.

Relocation to the new campus gave the university the opportunity to expand and diversify still further as the unwieldy arts faculty was broken up. A separate faculty of letters came to include a school of languages and institutes of history and geography, a faculty of sciences was created to take in the schools of chemistry, mines, electricity, and pharmacy, and a faculty of commerce was also established. Still another faculty, that of agriculture, which includes a school of fisheries, was organized on its own separate campus, at Ste. Anne de la Pocatière.

Laval entered the 1960s larger, more diverse, and more widely respected than ever in its history, just in time to be swept by the winds of change generated by the reforms of the Catholic Church introduced by the Second Vatican Council; by the "Quiet Revolution" which modernized the institutions of Quebec and woke secular nationalism from its long slumber; and, to a lesser extent, by a brief eruption of student revolt across the developed world. Questions of identity became crucial. If Catholicism no longer defined Francophone culture, what did? And if that culture was to be "Québécois," how would it deal with French-Canadians outside the province and non-Francophones—whether native peoples, Anglophones, or immigrants—inside it? Laval's staff and students played a leading part in offering answers to these questions, often through publications of the influential Presses Universitaires Laval, a publishing affiliate established in 1950. A few gave support to the terrorist Front pour la Libération de Québec, but most contributed to political and social change through the Liberal Party, then dominant in the province, the newly founded separatist Parti Québécois or the still vibrant Catholic press and social networks.

Individuals connected to the university thus responded to the new conditions in Quebec in various ways, by taking part in controversies which have by no means ended even now, but for the institution itself the key change came in 1970, when the royal charter of 1852 and the pontifical charter of 1876 were superseded by a new charter, provided by the provincial legislature. Nowadays, although the historic affiliation to the Catholic Church remains in place, it is more formal than substantive, apart from the faculty of theology. The special link with the *collèges classiques* has been broken, to permit entry from

any of the province's *collèges d'enseignement général et professionnel* (colleges of general and professional education, or CEGEPs). Competence in French is now an absolute requirement for admission to "primary" courses, aimed at bachelor's degrees, but may be waived for students working toward master's degrees or doctorates.

Since 1970 the university has continued to grow, receiving both federal and provincial funding while competing with McGill, the Université de Montréal (now much larger than its parent), and several newer schools for research contracts and benefactions from the private sectors. Even now 93 percent of its students are from the province of Quebec itself, many of them no doubt choosing it in preference to its rivals because of its location, both literal and metaphorical, at the heart of "La Belle Province."

Yet precisely because it is now a fully modern, secular university, as open to free thought and debate as any other, Laval can no longer claim, as it once could, to transmit a unified, self-contained, and untroubled culture. Today Laval is perhaps best represented, at least beyond Quebec, by the Liberal Party politician Jean Chrétien, one of its most distinguished alumni. Between 1980 and 1982, when he was the federal justice minister under Pierre Trudeau, he joined the fierce campaign to prevent the Parti Québécois, then in control of the province, from winning a provincial referendum on separation from Canada. He then led the government's successful efforts to remove control of the federal constitution from the British parliament. Prime minister from 1993, he again led the pro-Canadian forces to a victory (albeit a narrow one) in another referendum called by a Parti Québécois government. Educating both federalists like Chrétien and separatists, and worldly enough to secure funding from both, Laval has clearly come a long way from its origins as Bishop Laval's bastion of the Roman faith and the French crown in the wilds of New France.

**Further Reading:** There are numerous books in English on the history of Quebec, including the development of the seminary and the university, such as *The Canadian Frontier, 1534–1760* by W.J. Eccles (New York: Holt, Rinehart and Winston, 1969), *Lower Canada 1791–1840* by Fernand Ouellet, translated and adapted by Patricia Claxton (Toronto: McClelland and Stewart, 1980) or *Quebec: A History 1867–1929* by Paul-André Linteau and others, translated by Robert Chodoss (Toronto: James Lorimer, 1983).

—Patrick Heenan



# LEIPZIG UNIVERSITY

## (Leipzig, Germany)

**Location:** Leipzig, Germany, a city of more than 500,000 inhabitants (northeast of Weimar, east of Halle, and about 180 kilometers SSW of Berlin); a medieval trade route crossroads near the Elbe.

**Description:** From 1946 to 1990, within the former GDR, Leipzig University was the largest university in Eastern Germany. It was named Karl-Marx University from 1952 to 1990. Today, Leipzig is the largest institution of higher learning in the Sachsen free state (Saxony), with over 23,000 staff and students. Enrollment for 1995/1996 was 19,876 students in 14 faculties.

**Information:** Leipzig University  
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The *Universitas Lipsiensis*, founded by dissident German professors and students who left Prague University during the early stages of the Hussite movement, officially opened on December 2, 1409, with a ceremony in the Refractorio of the St. Thomas Church.

Prince Friedrich I ("The Quarrelsome") of Meissen and his brother Wilhelm, hoped to establish a university in Leipzig, on "true" German soil, an institution as prestigious as that in Prague, modeled after the universities in Paris and Bologna (*studia generale*). After royal approval was received, Johannes Boltenhagen, rector of the University of Prague, and the corporation of scholars from Prague arrived en masse in their homeland at Prince Friedrich's invitation and instituted the *hochschule* at Leipzig. In July, the corporation was given a house for professors, the abandoned Rathaus (Town Hall) of the city council, the earliest sign of the Prague corporation in Leipzig. In September, Pope Alexander V issued a papal bull, and the celebration at St. Thomas Church in December gave the church's seal of approval to the corporation-directed university, a first for a university supported by the Roman church. The pope named the bishop of Merseberg chancellor.

Several factors kept the masters, students, and institution together during the first decades: humanism rather than scholasticism taught in the *Artistenfacultat* (Arts Faculty or Humanities); the election of a deacon, who immediately organized studies even before the school

was officially recognized; statutes brought with them from Prague; the election of a new rector, Johannes von Munsterberg, a Silesian; and a lingering hope that they could someday return to Prague. Three hundred and sixty-nine students were matriculated during the first semester. As was the custom in European universities, students were organized into nations. The four nations of Leipzig University—Meissen, Saxony, Bavaria, and Poland—contained the German elite as well as serious scholars.

Two houses, *collegium major* and *collegium minus* established the university's place in Leipzig. A third college, the *Frauen Kollege* or *Jungfrau Kollege* (*Collegium Beatae Mariae Virginis*—College of the Blessed Virgin Mary), was established in 1422 by a master of the former Prague Polish nation who had his own funds. Three Silesian and one Prussian professor served as masters of this small house across from the Polish *Marienkappelle* (St. Mary's Chapel). In 1416, the first rector, von Munsterberg, died, and endowed this house for Silesian or Prussian students and professors. It later became a college building for the Cistercian abbey.

Most students lived in endowed houses, where they led disciplined lives with their master; they ate with him, they spoke Latin only, and in theory, they lived sheltered lives. A Swedish student at Leipzig in 1424 wrote home: "I live in the 'Kleinem Kollege.' At supper one is in charge of his own bowl and jug. Food is ample and good, also beer and wine. For savings and maintenance I need six groschen a week, because I must buy the drink myself. The Ordinarius reads from . . . [the Bible] each morning between 5 and 7 A.M. Whoever wants to be prepared must already be up by 4 A.M. Haec est vita laudabilis!"

In the early days of the University of Leipzig, the heart of its self-governance was the *Artistengakulat*, with professors who held bachelor's and master's degrees from all the various faculties of Prague University. The bishop of Merseburg, the university's chancellor, arbitrated in spiritual matters; the rector and university jurists were leaders in matters of secular law. The education and lifestyle of the new Leipzig students were different in 1409 from the usual *studia generale* founded by the church in other cities. The students and professors were already seeking progress from scholasticism in their adherence to humanistic teachings. Their constitution, although allowing for separate nations, pledged allegiance to the university above all. Autonomy from church and state put the scholars at Leipzig in a special position.

From the beginning, the university had books at its disposal. As a book handling trade center, the city was one



of the first to see new books as they became available and to hear new ideas. In 1462, Peter Luder, a wandering lecturer of the period, who was at Heidelberg for a time, then at Erfurt, came to Leipzig. His lectures were the first to bring the newer humanistic ideas to the university. He lectured for three hours on Terence, the Roman comedic poet, gratis, and charged 25 groschen for his course on rhetoric. Luder left for some unknown reason in the summer of 1462 for Padua. At the same time, Samuel Karoch had matriculated at Leipzig. Karoch promoted the spreading of humanism from Ingolstadt to Basel and Tübingen, Erfurt, Heidelberg, Cologne, and Vienna. Like Luder, Karoch was an inspirational and persuasive speaker.

Italian wandering lecturer, Priamus Capotius, who published *Oratorio metrica . . . in alma Lipsensi universitate habita* and Jacobus Publicus brought the written word of humanistic ideas to the professors and students of Leipzig, but the most important of these wandering lecturers was Konrad Celtis who came to Leipzig in 1486 and published *Ars versificandi et carminum*. Celtis was the first poet of German humanism in print; he taught first-level Greek in 1487, and also interpreted and edited the tragedies of the Roman writer Seneca.

Leipzig became a place for changing opinions, discussion, reading, and thought. Marcus Brandis published *Liber der Philosophia Platonis* in 1488, opening the way to the study of Plato in Leipzig. An early graduate of Leipzig, known as Niavis, wrote a small conversational book for students covering everything from initiation ceremonies to the proper method of combing one's beard: *Latinum ydeoma pro novellis studentibus*. The oldest copy known was printed hastily in Heidelberg under the title, *Manuale scholarium* and was published in 1857 as *Heidelberger Gesprächsbüchlein* by Friedrich Zarncke, who did not know the book's Leipzig origin. The book has played an important part in the study of the differences between modern life and an older society. Niavis died in 1514 as a clerical worker for the city of Bautzen.

A fourth college appeared at the university in 1426, the *Bernhardiner Kollege* for the education of monks of the Cistercian monastery near the *Frauen Kollege*. But the theology faculty was becoming an unpopular place for students to matriculate. In the 10 or 15 years preceding 1485, not more than 50 theological lectures took place at the university. The study of religion at Leipzig became a joke: cliques formed in student houses where the students were pious between 4:00 A.M. and 5:00 A.M., just enough time to save their souls; the most famous group of irreverents, under the master Johannes Fabri de Werd, was the "Schwabische Bund."

The end of the humanistic period at Leipzig University coincides with the emergence of Richard Crocus and Petrus Mosellanus. Leipzig, for all its interest in Greek did not have a Greek professor. The Bible, translated from the Greek, brought fame to Erasmus of Rotterdam, and caused controversy as his version differed from the

Latin. The Polyglot Bible had been translated at the Alcala de Henares in Spain, and was used in the study of Greek and Hebrew.

Richard Crocus (Croke), a British scholar and student of Aleander at Paris, took the position of Greek professor at Leipzig in 1515. His *R. Croci Britannii Acadamiae Lipsensis economium congratulatorium* was published in 1516. Students of Crocus included leading Leipzig theology professor, Hieronymous Dungersheim von Ochsenfurt. Crocus was followed in the position by "Petrus Mosellanus," who was born Peter Schade from the Mosel region, and was brought to Leipzig University by Caspar Borner.

The Reformation came to Leipzig as to other German towns after Martin Luther preached there; due to the abolition of Roman Catholic monasteries in Saxony, Herzog (Duke) Moritz von Sachsen gave St. Paul's monastery, including its extensive library, to Leipzig University in June 1543. Rector Caspar Borner had professors and masters study and note the volumes, and he accumulated the collection of four other Leipzig monasteries, as well as manuscripts, fragments, and letters from libraries throughout the Saxony-Thuringer area. Following Borner, Joachim Feller became librarian in 1675. He integrated more book collections, and created a handwritten catalog for the university. A later librarian, Christian Gottlieb Jochers, who served from 1742 to 1758, and who became famous for his respected lexicons, completed an alphabetical and inclusive university reference catalog.

In 1833, the library came under the jurisdiction of the Ministry of Culture. Ernst Gottfried Gersdorf, the director of the university library, reorganized the library on "scientific principles." By 1888, the library had expanded so much that a new building, the *Bibliotheca Albertina*, was planned according to designs by respected Leipzig architect, Arwed Rossbach. The *Albertina* was completed in 1891, on Beethovenstrasse, near the scientific institutes, but two-thirds of it was destroyed during World War II.

Its 453-year existence makes Leipzig's the second oldest German university library. Because of its special collections, the university library is now in demand by national and international scholars. Medieval hand-scripted works, papyrus, and coin collections from antiquity, legal briefs in Latin, fragments of handwritten Bibles from the famous Codex Sinaiticus of the fourth century have all been assembled and catalogued throughout the vast system which serves the university, greater Leipzig, and other towns in Saxony.

The decline of the university in the late seventeenth century was somewhat relieved by the music studies provided to the university by the cantor of the Thomas Church, Johann Sebastian Bach, who was also the head of church music for St. Paul's Church at the university. The elitist university music faculty looked down on Bach for his lack of university training, although students were eager to join the conservatory and choruses he led. Bach

was not the city council's first choice for the position he held from 1723 to 1750, and the university consistently thwarted his ability to earn the extra fees he needed to support his family. Today the university houses a collection of ancient instruments at the Grassi Museum, which has been restored from World War II damages and contains about 4,000 old instruments. Concerts of Bach's music are performed and recorded by Leipzig musicians using this collection.

A student at Leipzig from 1765 to 1768, Johann Wolfgang Goethe was inspired to write *Faust* in Auerbach's Keller, a student haunt owned and run by the family of Heinrich Stromer-Auerbach, rector of the university in 1508. Other outstanding students of the university include: artist Martin Schongauer; philosopher and mathematician Gottfried Wilhelm Leibniz; dramatist and critic Gotthold Ephraim Lessing; historian Leopold Ranke; composers Richard Wagner and Robert Schumann; and philosopher Friedrich Nietzsche.

Teachers associated with the long history of the university include: German lecturer and linguist Christian Thomasius; theologian and philosopher Christian August Crusius; jurist and statesman Karl Friedrich Wilhelm von Gerber; philosopher Johann Gottlieb Fichte; novelist Jean Paul Richter; poet Christian Fürchtegott Gellert; and philosopher Friedrich Wilhelm von Schelling.

The medical faculty was established in 1415, doctors were in practice by 1438, and the "theater of anatomy" was operational by 1784. The "Trierschen Instituts," a

teaching institute for birthing was opened in 1810 with a "healing institute" for diseases of the eye following in 1820. In the middle of the nineteenth century, numerous clinics were founded to research disease, anatomy, hygiene, stomatology, psychiatry, nervous disorders, and children's health, with still more added in the twentieth century. In 1906, The Institute for the History of Medicine became the first of its kind in Germany, named for its founder, Karl Sudhoff; today it houses many old medical instruments and archival papers.

Over 40 years of Soviet Communist suppression began with a student council vote in 1947 which scandalized Soviet military authorities when votes for the election numbered 500 less than the 1,100 SED (the Communist-sponsored Socialist Unity Party) student membership. German universities had a long tradition of liberalism, one that the Soviets endeavored to wipe out by replacing faculty and administrators and arresting and imprisoning liberal students. Leipzig was one of the important centers of the tumultuous events of 1989 that led to the reunification of Germany. September 1991 saw the reestablishment of the *Vereinigung von Förderern und Freunden der Universität Leipzig* (Union of Sponsors and Friends of the University of Leipzig), who pledge, "now and forever," to be members and friends of "Alma Mater Lipsiensis," and to support its teachings and research.

—Carol Shilakowsky



# LORÁND EÖTVÖS UNIVERSITY

## (Budapest, Hungary)

<b>Location:</b>	Budapest, Hungary, on the Pest side of the Danube in the inner city.
<b>Description:</b>	A state-run university enrolling approximately 12,400 students in undergraduate, graduate, and professional schools.
<b>Information:</b>	Rector 1364 Budapest, V Egyetem-tér 1-3 POB 109 Budapest Hungary (1) 267-0820 Fax (1) 266-9786
<b>Visiting:</b>	A guidebook to the university library is available at the library. For university tours, contact the above phone number.

Loránd Eötvös University (*Eötvös Loránd Tudományegyetem*) is the oldest continuously operating university in Hungary. It is also the nation's most prestigious university. Attempts were made in the Middle Ages to found universities at Pécs (1367) and Óbuda (1389), but political instability and successive wars made their existence impossible. In the sixteenth century, Hungary was torn into three parts by the northward invasions of the Turks and the eastern expansions of the Hapsburgs, and subjected to the tumultuous events of the Protestant Reformation. Overcoming these obstacles, the Jesuit Order managed to establish a college in Nagyszombat in 1561. During the subsequent Counter-Reformation, Nagyszombat (now Trnava, Slovakia) became the center of Hungarian Catholicism. At the forefront of the movement was Cardinal Péter Pázmány who had been named Primate-Archbishop in 1616. Cardinal Pázmány was responsible for the reconversion of many Hungarian magnates who had gone over to the Protestants; he was also a leader in the subsequent cultural and educational improvements. In 1635, Pázmány transformed the college at Nagyszombat into a university with faculties in theology and philosophy. A faculty of law was added in 1667.

The Turks, who lost control of Hungarian territory in 1686, left the country in ruins. The city of Pest had a population of under 4,000 when the Hapsburgs took over and brought with them Italian and Austrian Baroque art forms and ideas. As an enlightened despot

of the eighteenth century, the Empress Maria Theresa took the university under her wing and granted it complete university status in 1769 and also established a faculty of medicine. In 1777 she moved it and its library to Buda Castle. There the university was placed under state control. The management and material foundations of the new Buda University were also modernized and improved. In 1784, her son, the Emperor Joseph II, moved the university to its present location on the Pest side of the Danube in a former Pauline monastery designed by Matthias Drenker.

The Pest university library, today known as the Central Library, grew out of the Jesuit College Library founded in 1560. It contained many manuscripts given to the Jesuits by noble families fleeing the Turkish invasion and remains a repository for 11 medieval manuscripts from the world-renowned collection of King Matthias Corvinus. Of special interest to students of medical history is the Abucasis Codex. Among the 160 other medieval manuscripts and miniatures is an eighth-century Beda fragment (the oldest manuscript in the collection), a tenth-century Greek *Gospel* from Constantinople, a 1340 manuscript of Dante's *Divine Comedy*, six fourteenth-century antiphonals and over 1,000 incunabula which add to the collection's depth. Currently, the library holds 1,400,000 volumes and 40,000 manuscripts. It is a particularly rich source of early Hungarian printed works (to 1711), medieval and Christian history, philosophy, and psychology. The Central Library is also home to the Pray, Kaprinay, and Hevenesi Collections of Hungarian history. The first catalogue of the library was published in 1780–81 by Gregory Pray just before the move to Pest, at which time it became a state-owned institution and was housed in a former Franciscan monastery.

The Hungarian Jacobin movement of 1795 was squelched by the Hapsburgs and their political conservatism gained enough strength through the Holy Alliance of 1814–15 to stem educational progress for the first four decades of the nineteenth century. Professors sympathetic to the ideals of the French Revolution were removed from Pest University by the Hapsburg government.

In the 1830s and 1840s, those seeking Hungarian independence called for a general liberalization of the educational system and the use of Hungarian instead of Latin in the classroom. An 1844 law did introduce Hungarian as the general language of teaching, but because of the continued conservative curricula offered, many Hungarian students went abroad for their university education, mostly to schools in the German sections of the Hapsburg Empire.





*Loránd Eötvös University*

During the Revolution of 1848, students at Pest University again formally demanded educational reforms and the result this time was Act XIX "On the Hungarian University," which guaranteed freedom of teaching and learning. (The university was now under the control of the Ministry of Public Education.) When the revolution collapsed, however, the Hapsburgs reinstated repressive measures. Once again liberal professors and students were removed from the university and the limited self-government of Pest University was revoked. German became the language of instruction; yet, certain German educational notions, such as free choice of curricula within certain limits, were also introduced and the philosophy faculty became a true university faculty instead of a preparatory school.

About ten years later, the Hapsburg monarchy lost some of its influence and the effect at Pest University was autonomy and the reinstatement of Hungarian as the language of instruction. After the *Ausgleich*, or Compromise, of 1867, Hungary became a partner in the Hapsburg Empire and the new economic and political-social condition engendered reform of higher education. The university began to expand departmentally and physically.

In 1873, the city of Budapest was created by the union of Obuda, Pest, and Buda. The new city became the cultural, political, intellectual, and commercial heart of the new imperial Hungary. Now known as Budapest University, the school became Hungary's most prestigious seat of learning.

*Egyetem-tér*, or University Square, is only a few blocks from the Danube River near the Elizabeth Bridge in the Inner City district of Pest. Off of the square are the University Church, the Central Library, the Central University building with the law school, and the faculty of arts. The first three are noted for their significant architecture. The oldest of them, the University Church, is considered an outstanding example of Hungarian Baroque and a forerunner of Hungarian architectural style in general. Its architect, the Austrian Andreas Mayerhoffer, brought a full-blown Baroque style to his work in war-torn Pest. The church was finished in 1756 except for its towers which were added in 1768 and 1771. In 1786, the Emperor Joseph II removed it from the control of the Pauline Order and in 1849 it was the site of the Hungarian parliament. In the late nineteenth century it became part of Budapest University, then in the midst of its expansion. A new university library, called Central Library, was designed and built by Antal Skalnitzky (or Szklanczy) and Henrik Koch between 1873 and 1875 in the neo-Renaissance style. The Central Building and the Law Faculty are neo-Baroque and were built in 1898–99, opening in May 1900. This domed building was designed and built by Fülöp Herzog and Sándor Baumgarten with neo-Baroque features reminiscent of the late eighteenth century and Mayerhoffer.

Other university buildings in the neighborhood housed the faculties of engineering and technology. The impor-

tance of these sites and the change in educational priorities in the twentieth century is implied by the almost continuous expansions which took place there in the 1880s and 1890s. Shortly after 1900, all the available space was exhausted and the faculties relocated to new buildings on the Buda side of the city in Műegyetem Rakpart designed by the university's own architects: Győző Czigler, Alajos Hauszmann, and Samu Pecz.

The arts faculty has remained in the inner city on a site once occupied by a thirteenth-century parish school. This was followed in 1717 by a secondary school established by the Piarist Order at the request of the City of Pest. This school, one of the first in the city, became well-respected for teaching and developing the Hungarian language as well as the sciences. In fact, physicist Loránd Eötvös studied there between 1857 and 1865. Early in the twentieth century, however, the building had to be removed to make way for the construction of the first Elizabeth Bridge. The present building, begun in December 1913, was completed in February 1917 by architect Dezső Hüttl. In 1948, the Piarist school was nationalized. The order was given another school in Budapest and the university's arts faculty took over the complex in 1950. The *Egyetemi Színház* (University Theater) is also located there.

With imperial status before World War I, the Hungarian government was able to commit more resources to its educational system and one result was a decrease in the number of Hungarians studying abroad. Yet conservative forces at the university restrained progress in most disciplines causing turmoil particularly in the law and philosophy faculties. After 1900, the situation was equally reactive in the sciences where politics, not ability, was the requirement for professorship. Reform movements appeared again in 1918 and 1919 when women and progressives were freely admitted to the university. In 1921, Budapest University became known as Péter Pázmány University in memory of its founder. Progress was once more stymied when Nicolaus von Horthy was named regent of Hungary in 1920. He dictated extremely rightist policies through World War II and once again progressive students and professors were banned from the university. Although in honor of its 300th anniversary in 1935, the university was presented with the gift of two completely equipped observatories, law education remained the dominant disciplines into the thirties.

The Hungarian public education system, like other Hungarian social, political, and economic institutions, was reorganized after World War II when the nation fell under Soviet Russian influence. It was then headed by a Ministry of Education and an advisory body called the National Council for Public Education. The National Council instituted changes on all educational levels, particularly the secondary, which now included three types of schools: the Latin or grammar, the modern, and the secondary with a science major. Since then, the proportion of law students has decreased while those of the

social and physical sciences, particularly medicine, have increased and relationships between the university and Hungarian industry have been established. In 1949, Péter Pázmány University became Loránd Eötvös University in honor of Hungary's greatest theoretical and experimental physicist. Between 1870 and 1890, Eötvös studied and published in the areas of capillary phenomena and the measurement of surface tension, developing the renowned Eötvös reflection method. His so-called Eötvös Law, which recognized the correlation between surface tension and molecular weights of liquids measured at different temperatures, was fundamental to Einstein's work on relativity. Eötvös also designed the Eötvös Torsion Balance (Pendulum) which measures minute changes of gravity and determines the distribution of masses in the Earth's crust. In 1872, he was appointed to the chair of theoretical physics at Budapest University. He was also responsible for the founding of the university's school of geophysics.

In 1951, the faculty of medicine was detached from Loránd Eötvös University and established at the Medical University of Budapest. During these middle years of the century, the Eötvös Normal School was the principal teachers' training school in Hungary. It was supervised by the University Council which also maintained the Middle School Teachers Examination Committee while a professor from the university served as president of the Middle School Teachers Training Institute. Its curriculum was expanded to include the preparation of technical specialists as well as teachers. The government also required

that a certain proportion of students come from working-class backgrounds. The regular length of study was five years followed by two years of research and a thesis if the student desired. Programs for foreign students were also initiated in the 1950s and the university now maintains cooperative agreements with 30 universities.

Since the Loránd Eötvös University was founded by an individual, not the state, it has guarded its autonomy and is still considered an independent legal entity. Although today it is a state-run, nonprofit university, it still maintains controls of its land and resources in cooperation with the Ministry of Public Education. Internal administration is overseen by the university council, made up of the rector, prorector, deans, and prodeans. The present faculties include law and political science, science, arts, and teaching, with attached institutes and postgraduate centers for sociology and social policy, experimental biological research, law, and political science. In 1995, there were 1,817 on the teaching staff and 12,373 students.

**Further Reading:** K. Polinszky and É. Széchy's *Higher Education in Hungary* (Bucharest: UNESCO CEPES, 1985) provides a broad history of Hungarian education with a socialist flavor. Another brief account will be found in *Universities of the World Outside U.S.A.* edited by M.M. Chambers (Washington, D.C.: American Council on Education, 1950).

—Cynthia Ogorek



# LUDWIG MAXIMILIANS UNIVERSITY OF MUNICH

## (Munich, Germany)

<b>Location:</b>	In Munich.
<b>Description:</b>	A state-supported, coeducational university with 60,000 students and faculties, and over 200 affiliated institutes.
<b>Information:</b>	Ludwig-Maximilians University Geschwister Scholl-Platz 1 80539 München Germany 89 21800

The Ludwig-Maximilians University of Munich is now Germany's second largest university, with a teaching staff in the early 1990s of 3,425 and a matriculated student population of 63,888, surpassed in size only by the Free University in Berlin. It was founded in 1472 by virtue of a bull solicited by Ludwig der Reiche, issued by Pius II from Siena on April 7, 1459, and by a charter from Ludwig himself, duke of Upper and Lower Bavaria and count palatine of the Rhine. First established at Ingolstadt, what is now known as the University of Munich was moved to Lands-hut, northeast of Munich on the Isar River, as the Ludwig-Maximilians-University in 1800 by the elector Maximilian Joseph IV, who ruled Bavaria from Munich. The university was transferred to Munich by Ludwig I in 1826.

The delay between the original bull and the university's original opening in Ingolstadt in 1472 was occasioned by the duke's war against Albert of Brandenburg and the emperor Frederick III, but, after the opening, 489 students matriculated within the year. In the following two years, the number of students increased until the end of the century, with a peak of 266 in 1514, just before the outbreak of schism split the German-speaking lands into two groups.

Ingolstadt, some 40 miles north of Munich, had been the seat of a royal villa from the early ninth century, and received its charter of civic incorporation in the mid-thirteenth century. Thereafter, it swiftly grew in importance, becoming the capital of a dukedom which was eventually merged with that of Bavaria-Munich. Its fortifications, erected in 1539, withstood the siege by Gustavus Adolphus of Sweden in 1632. The French surrendered the town to the Austrians in 1743, and the university's move to Landshut, caused essentially by a need for a reform so radical as to require relocation, was hurriedly undertaken when the town was again threatened by the French, who besieged it for three months in 1800. After the French victory, the fortifications were dismantled.

The university statutes were adapted from those of the University of Vienna, founded by the Hapsburgs in 1365. Vienna had been the institution hitherto most frequented by Bavarians in search of a university education. The inaugural brief of January 1472 referred to Ingolstadt's new institution as a papally approved *universitas et studium generale* and endowed it with all the privileges which used to be bestowed at Athens and still were at Bologna and Vienna. The bishop of Eichstatt became *ex officio* chancellor, and the ceremonial opening took place on June 26, 1472. A project to make the Ingolstadt church of St. Mary's collegiate fell through. Modeled on the Vienna scheme, it would have given university chairs to its canons, who would therefore be salaried by their benefices, but the endowment was presumably inadequate.

Ecclesiastical revenues were nonetheless used to support the academic foundation, being diverted from a fund that supported some of its beneficiaries to hear mass daily and say a stipulated number of prayers for the souls of the dukes, and also provided for eight psalm singers and an organist to sing over the ducal grave. Such an annexation of a pious bequest required the highest ecclesiastical sanction, duly granted by the bishop of Eichstatt in 1454 and by Paul II in 1465. The university professor of theology seems to have held a prebend at Eichstatt.

A draft charter projected the division of the student body into nations as at Vienna, of Bavarians, Rheinlanders, Franks, and Saxons, but the plan was modified in successive drafts and then abandoned; in 1472 there were neither nations nor consequential student participation in university government. There were two chairs of theology, three of jurisprudence, one of medicine, and six of arts. Professorial appointments were reserved to the duke. Voting was by faculty, with all regent masters having membership of their faculties and at first of the university's general council, for which four years standing as a master was later required.

Very early the faculty of arts split into two opposed camps, nominalists or followers of the *via moderna* of Ockham's followers (emphasizing the transcendence of the divinity), and realists, or followers of the *via antiqua* of Aquinas and Scotus (emphasizing the rationality of divine revelation and divine law). Each camp had its own dean, council, registered students, chest, and *bursae*, or student hostels. The two factions were not officially recognized, since they shared only a single faculty vote, and were forcibly reunited in 1478 at the insistence of the duke, who had ordered the installation of a single dean in October 1477. The *antigui* group attempted to split away again after Ludwig's death on June 9, 1479.

The son and successor of Ludwig der Reiche, Georg der Reiche, carried on his father's patronage of the university, and founded a college not for masters, as was normal in Germany, but for eleven poor students under a regent. The model was that of the Paris foundations, and the institution was known as the Collegium Georgianum. The students were to come from 11 different towns: Landshut, Ingolstadt, Launing, Wassenburg, Burghausen, Schärching, Braunau, Oetting, Wemding, Hilpolstein, and Weissenhorn. The university was also remarkable in imposing an oath of fidelity to the pope on every student admitted, a condition known formerly only at Caen 22 years earlier, but later revoked there. Ingolstadt, ruled from Munich by Duke Wilhelm IV of Munich from 1508 to 1550, was at the center of resistance to the schism instigated by Luther's refusal to submit to the bull *Exsurge, Domine*, of June 15, 1520. Wilhelm IV, initially inclined to be sympathetic to Luther, turned hostile to the schism, whether from fear of a peasant revolt, or from a desire for an Austrian Habsburg alliance, or even from a possible ambition eventually to become emperor. Ingolstadt not only did not revoke the oath of loyalty to the Rome see, but its rulers were to invite the Jesuits to the university in 1556 with the pope's blessing.

Among the important figures connected with the university in its early years were the poet Conrad Pickel (Konrad Celtis), fiery in his repudiation of Italian claims to cultural superiority, who advanced at Ingolstadt the claims of the lyric poetry of Roman antiquity, and his opponent Jakob Locher, who had been taught by Pickel. Locher quarreled with the Ingolstadt theologians, and was to receive the poet's laurel from Maximilian I in 1497. In addition to the outright hostility of *moderni* and *antiqui* (which did not die down until about 1513), the first four decades of operation brought about the predictable tensions between town and university, mostly concerning clashes between civil and ecclesiastical jurisdictions and exemptions, and between artists and theologians, concerned in 1499 with ceremonial precedence. Noteworthy disturbances occurred in 1507, and a new tax regime was imposed in 1508.

Much more significant than interior tensions however, the university became a leader in the opposition to Martin Luther during the Reformation. Johann Maier of Eck, known from his birthplace as Johann Eck, was Luther's fiercest opponent. From 1517 he was vice-chancellor as well as a professor of theology at the university and a canon of Eichstatt. In 1518 he was obliged against his will to assume the rectorship. It was he who was charged with the publication of *Exsurge, Domine*, in Germany, who disputed against Luther at Leipzig in 1519, holding the primacy of the pope over a general council, and who led the literary pamphlet war against Luther, Carlstadt, and the theology associated with the schism. Consulted about the disputation, Paris decided that Eck had won,

and the Ingolstadt senate made him a financial award. During the plague of 1521 Eck left Ingolstadt and visited Rome, returning after the death of Leo X in December 1521. The university formulated the Bavarian religious edict of March 5, 1522, and was a body steadfastly anti-Lutheran from April 1522. There were ecclesiastical prosecutions for heterodoxy in the city and brief incarcerations of students for under a week for publicly breaking the Lenten fast in 1569.

Numbers at the university began to decrease. In the plague years the numbers were low, only 69 in 1521 and 114 in 1539. In 1521 the university virtually deserted the town, and in 1539 the jurists again fled. In 1549, another plague year, the jurists and unmarried arts students left the town, and the university did not resume full activity for a period. By 1548 the university had reached a state of financial crisis and an appeal was made to Paul III, who on October 24, imposed a tax on the clergy to last three years. However, it was never paid to the university. A new set of regulations in 1555 suggests that the university was felt to be in decline, and there is no account of any centenary celebration such as might have been expected in 1572. A 1555 commission appointed to look into the university's affairs found evidence of financial disorder.

It was at the request of Wilhelm IV that the Jesuits, whose formal foundation as a religious order dated only from 1540, were first invited to teach in the university, and for the next two centuries the history of the university largely centers on its relationship with the Society of Jesus, or Jesuits. They became responsible in 1571 for the arts course, opened a secondary school in the town, and taught in the theology faculty after Wilhelm IV asked Paul III to send Jesuit professors of theology. Wilhelm IV's successor, Albrecht V, was less favorable to the new order, but the emperor Ferdinand in 1555 hoped that they would found their own college in Ingolstadt. A *Capitulatio de erigendo novo collegio theologico in usum Societatis Jesu* was issued in December 1555, and in July 1556 six Jesuits with 12 pupils and servants arrived in Ingolstadt, blessed by the pope before departure from Rome. Tension between the Jesuits and the diocese first arose in 1558, but when the university was ordered to send two theologians to the Council of Trent in 1561, one of those chosen was a Jesuit.

Twenty demands by Jesuit provincial made in 1571 were mostly met, and Duke Albrecht strengthened their hold on the university in 1573. Later a clash with the university resulted in a partial Jesuit withdrawal for two years. The university senate invited the Jesuits to return, and in 1576 the Jesuit college was incorporated into the university. In the following year the duke wrote to the magistrates on behalf of the Jesuits, obtaining charitable status and consequent tax exemptions for their college and seminary. Albrecht V died on October 24, 1579 and under his son and successor, Wilhelm V, who was even



more friendly to the Jesuits, there was peace between the order and the university. The Jesuits took over the teaching of Greek in 1582, and a year later the papal nuntius endowed their seminary, to which the duke forced other religious orders to send students.

Student numbers ran at an average of 201 new entrants a year. Notable was the increase in the number of foreigners, particular of noble extraction. Fifteen Polish nobles were admitted with the Silesian prince Alexander in 1580. The plague returned in 1562 and 1563, when most of the university left for Kelheim, and then, when the plague reached that town, for Pfaffenhofen. The student body normally elected nobles as rector, who, in spite of a petition to Sixtus V in 1586, were not allowed to be married until 1642.

Maximilian I, son of Wilhelm V, succeeded his father as duke in 1597, and became elector in 1623, ruling until 1651. Although himself a pupil of the Jesuits, he acted against their encroaching hegemony at Ingolstadt. A pact was concluded in 1613, giving both the university and the Jesuits the right to exclude students from classes. The era of the Thirty Years' War (1618–48) was nonetheless marked by a general lassitude in the university. The canonization of the Jesuit founder in 1622 was celebrated, but the bishops were now appointing substitute vice-chancellors, incidentally including five Jesuits among them. The general inertia continued after the war in spite of a disciplinary edict from the Kurfürst in 1654. An effort was made to prevent Bavarians from studying elsewhere than at Ingolstadt, which, it was noted in 1703, provided all the necessary facilities even for nobles to acquire skills at riding, dancing, and fencing. Salaries were in arrears, and it was found necessary to issue regulations about opening hours, prostitutes, the issue of house keys, and the need to increase the number of night watchmen.

In the early eighteenth century, the elector Maximilian Emanuel, ruler from 1679 to 1726, formed an alliance with Austria against England and France. The university buildings were used for billeting and as a hospital, while teaching continued in private houses of the professors. The rectors were now professors, and there was an annual recruitment of around 145 students. After the reign of the elector Charles Albrecht from 1726 to 1745, Maximilian Joseph III became elector from 1745 to 1777. During this period, only the legal and medical faculties at Ingolstadt appear to have withstood comparison with the mediocre standards obtaining elsewhere in German-speaking territories. The Jesuits were suppressed in 1773, but some ex-Jesuits were retained as teachers at the university. There were disputes over the order's property, but the Jesuit library and natural history collection passed to the university.

Talk of the need to move the university began as early as 1769, but fear of imminent invasion by Napoléon's troops caused the final decision to be made suddenly. Munich was a possible destination, but the small size of Landshut was the attraction that finally swayed the authorities, and the move was sanctioned on November 25, 1799. A fifth faculty of natural and social sciences was now added, and the Napoléonic reorganization of the university took place (as well as its physical relocation to Landshut in 1800). In 1805 Napoléon turned electoral Munich into a royal capital, declaring the Holy Roman Empire dissolved in 1806. Faculties disappeared, and the goals of the university became to service the needs of the state. Ultimate responsibility lay with the ministry of education. Teaching was arranged in a general section with four classes, philosophy, mathematics/physics, history, and art, and a special section with classes in religious teacher training, law/history, economics and administration, and medicine. The professoriate became civil servants, and received a pension on retirement. Degrees took four years, only after which was foreign study licensed. From 1807 degrees were bestowed not with imperial and pontifical authority, but with royal authority.

In 1815, when Munich had a population of about 45,000, Ludwig I, still crown prince, began to redesign the city. He acceded to the throne in 1825 and soon imposed a reactionary regime, lending his weight to the university circle surrounding Görres, Baader, and Schelling. Ludwig I had moved the university to the old Jesuit college in Munich. The 1814 statutes were provisionally kept, to be replaced by the new regulations of 1838 which stipulated five years of study for a degree. The university's fine building on the Ludwigstrasse by Gärtner was erected between 1835 and 1840 (its large assembly hall by Bestelmeyer replacing Gärtner's smaller original, finished in 1909). The university protested against the government's first appointment of a Protestant minister, and it was briefly closed early in 1848. That year it sent seven deputies to the university reform commission at Jena.

The university continued to expand its fields of study, adding a technical school in 1868, and increasing the Protestant faculty while maintaining a strong Catholic faculty. Now functioning as a state-supported institution, enrollment averages 60,000 students in undergraduate and graduate programs. Offering a traditional arts and sciences education, students can choose from 20 departments, including musicology, veterinary sciences, and Far Eastern studies. The university employs nearly 3,500 teachers.



# MARTIN LUTHER UNIVERSITY OF HALLE-WITTENBERG (Wittenberg, Germany)

**Location:** At Halle in Saxony-Anhalt (Sachsen-Anhalt) on the Saale River, 20 miles (32 km) northwest of Leipzig in the former Eastern Zone of the unified Federal Republic of Germany.

**Description:** A state-controlled coeducational institution of higher learning formed in 1817 by the merger of the University of Wittenberg (founded in 1502 as an institution of the Catholic Church) and the University of Halle (founded in 1694 as a center of German Protestant Reformation). Its present name was adopted in 1933. The university was under the German Democratic Republic (GDR) administration until 1990. About 11,000 students enroll annually in faculties of: mathematics-science-technology, philosophy, law, theology, economics, agriculture, and medicine.

**Information:** Martin-Luther Universität Halle-Wittenberg  
Rector: (Rektorat)  
Universitätsplatz 10  
06099 Halle (Saale)  
Germany  
(0345) 55-21001/02  
Fax (0345) 55-27075

Martin Luther University of Halle-Wittenberg is the largest and oldest institution of higher learning in the province of Saxony-Anhalt. Its administrative history began in 1817 when two earlier universities, the University of Wittenberg (*universitas wittenbergensis*) and the University at Halle (*universitas halensis*), were merged under Prussian control following the Napoleonic occupation (1813–14). Prussia could not support both universities.

The University of Wittenberg is the older of the merged universities, and has an eventful history in the annals of educational theology. Wittenberg, located 42 miles northeast of Leipzig and 55 miles northwest of Berlin on the Elbe River, served as capital of the duchy Saxe-Wittenberg (1273–1422) until the House of Wettin gained control of the city in 1423.

Various forms of Humanism were embraced by the north German princes; their educational policies reflected “new ways” of thinking. The University of Wittenberg was founded by the elector Frederick II (Frederick the Wise) of Saxony in 1502 as an institution of humanistic learning. Wittenberg later became the site of Martin Luther’s crusade to reform the Catholic Church. Through

the teachings of Martin Luther, Johan Bugenhagen, and Philipp Melancthon, the University of Wittenberg became a catalyst and center for the Reformation in Germany.

Martin Luther was born in Eisleben, Germany, November 10, 1483. He received a bachelor of arts degree from the University of Erfurt (notable for its humanistic education) September 29, 1502, and received his masters degree January 7, 1505. On July 2, 1505, returning to the university and his law studies, Luther was hit with a sudden bolt of lightning during a thunderstorm. It knocked him to the ground as he prayed, “Ste. Anne help me. [and] I will become a monk.” His medieval Christian belief in the renunciation of the world to gain God’s favor was typical of his time. He entered the Augustinian monastery in Erfurt on July 17, just weeks later. His parents were upset with his leaving them.

His monastic life was characterized by deep bouts of anguish because of his sins; struggles with Satan; and the fear of God. Eventually, through the scriptures, he found peace. In Saint Paul’s Epistle to the Romans text, “The just shall live by faith,” Luther became convinced that he must have perfect faith and experience his own true fellowship with God. That was the cornerstone of his teachings.

“Faith,” in the Middle Ages had been belief in the impersonal, supernatural powers of God. Luther’s challenge to the structure of Catholicism led to an interpretation of Christianity that made God accessible directly to humans, without interference from priests or pope, through prayer. He studied theology at the University of Erfurt and was ordained, celebrating his first Mass May 2, 1507.

Luther brought his theories with him when his confessor and superior, Johan von Staupitz, sent him to teach at the new University of Wittenberg in 1508. He received a baccalaureate in Bible study from Erfurt in 1509, and was sent to Rome on a mission by his Augustinian order. In Rome, he became aware of the personal luxuries of the Pope, the injustices of the papal court, and the plight of poor parishioners and prelates; he was outraged. Luther returned to Wittenberg as professor of Bible literature, receiving his doctorate in theology from the University of Wittenberg, October 19, 1512 (where he was given a house which later became a barracks and is now a museum).

Luther lectured at Wittenberg on the Psalms and from St. Paul’s Epistle to the Romans (1513–17), and became convinced that there was no way man could gain special favors from God (especially not through the purchase of indulgences), but he believed that man could find a “gracious God” by accepting what God has done for him in the life, death, and resurrection of Jesus Christ. He became parish priest in Wittenberg, preaching what he believed,



*Martin Luther University of Halle-Wittenberg*

having affinity with the early Augustinian piety influenced by St. Paul. His idea was not to break from the Catholic Church, but to “reform” it according to scripture.

Luther was a powerful preacher in his own German language. In 1517, John Tetzel (1495?–1519), a Dominican monk, born in Saxony and educated at the University of Leipzig, was sent by the Holy See (Pope Leo X) to sell indulgences (sin-pardoning tickets) in central Germany. The money collected was to be used to help build St. Peter’s Basilica in Rome. Frederick the Wise forbid Tetzel to enter his domain. Luther railed against Tetzel by nailing an invitation on the castle church door in Wittenberg on October 31, 1517, for all to debate with him—as was scholarly custom—in speech or writing, regarding the question of indulgences. Luther also attached his famous 95 theses which argues that the Pope could not pardon sins, only God could, and that sinners who repented had no need to purchase indulgences. The unrepentent could not profit by such device, according to Luther, who proceeded to protest other Church doctrine in his theses. These documents were first written in Latin.

Luther meant them to serve as intellectual debate. The distribution of Luther’s theses spread quickly over western Europe (due to Gutenberg’s printing press and the capability of printing German translations), and a controversy raged among the German princes who were sympathetic, disliking papal interference, and the faithful who attacked Luther. The castle church door was burned during the Seven Years’ War (1756–63) and named the “Black Board” (“Schwarzes Brett”) by students of Wittenberg University; the monumental brass door which can be seen today with the original Latin text and figures of Luther and Melanchthon (designed and hammered in brass by August Klover of Berlin) was erected in 1858.

Luther was summoned to Rome. His “heretical” display had to be addressed. (Tetzel, himself, issued 100 counter theses.) But Wittenberg University and the Saxon elector intervened, insisting that the German prelate and scholar must be interviewed on German soil. Luther was questioned at the Diet of Augsburg by Cardinal Cajetan (Tommaso de Vio) in October, 1518. He refused to retract his views unless he was proved wrong



from Holy Scripture, appealing from Cardinal to Pope and from Pope to the Council.

Legal matters for the Church had been handled by university jurist-prelates, as most universities were extensions of the Church, but at Wittenberg, a long history of civil jurists had prevailed, with titles of "Gutachten," consultants, advisers, experts of arbitration proceedings, providing legal council to princes and citizens of free states. The earliest of these jurists was Henning Göde (ca. 1450–1521) who gained the life title of "monarcha iuris" and wrote the legal statutes for his day ("Konsilien die praxis"). Göde and Hieronymus Schürpf, also professor at Wittenberg, were Luther's legal advisers during these trials. Melchior Kling, a Wittenberg law professor, 20 years after Göde's death, wrote 109 "Consilia" (statutes), and Wittenberg Ordinarius, Matthias Wesenbach, who began open practice as "Gutachter" in 1576, also made history in German "Konsilien" (statutory) literature.

During Luther's trial period, Carl von Miltz, a German papal legate rebuked Tetzels 100 counter theses for their "exceptional language" and "improper procedure," and Luther agreed to refrain from further discussion pending arbitration by German bishops. That silence was broken when Luther responded to a challenge of German Catholic theologian Johann Eck to debate the age of the papacy and its divine origin at Leipzig in July 1519.

In 1520 Luther wrote his three great treatises: "An Address to the Christian Nobility of the German Nation," "On the Babylonian Captivity of the Church," and "The Liberty of a Christian Man." In the same year, Pope Leo X issued a bull condemning Luther's doctrines and threatening him with excommunication. Luther had 60 days to recant, but instead, burned the bull and a volume of canon law on December 10, 1520, outside the walls of Wittenberg under an oak tree in the presence of students, professors, and citizens.

Charles the V (Holy Roman Emperor) convoked his first diet of princes and representatives of free cities in 1521 at Worms, where Luther was asked, once again, to recant. Luther issued his famous statement, "Here I stand, I cannot do otherwise," and was placed under the ban of the Empire.

By order of Frederick the Wise, Luther was hijacked and placed "for safe keeping" in Wartburg Castle near Eisenach under the pseudonym, "Junker Jorg." It was there Luther wrote the treatise, "On Monastic Vows," and translated the New Testament from the Greek text of Erasmus into German. He later translated the Old Testament, with the help of Johannes Bugenhagen, professor of theology at Wittenberg and lifelong friend.

In 1522, Luther returned to Wittenberg to mediate a dispute which had arisen between his followers (who were destroying Catholic churches) and political authorities (so-called Peasant Wars). His tract against the unruly "faithful" led to rejection of his views by some of his followers. In 1525, he married Katharina von Bora (1499–

1552), one of several nuns who came to Wittenberg under the influence of his teachings; she bore him six children.

Luther's later career was prodigious, writing Bible commentary, tracts, sermons and hymns, including "A Mighty Fortress Is Our Lord." Emperor Charles V was too busy fighting the French, Turks, and the Pope to deal with Luther, and he was left alone to expound his stated beliefs. With the help of his colleagues, Johann Bugenhagen and Philipp Melanchthon, Luther revised his Bible translations and furthered the cause of Protestantism.

The University of Wittenberg was critical during the first stages of the Reformation. It was where Luther lived, taught, studied, and preached. He attracted a number of like-minded theological reformers to Wittenberg, of whom Philipp Melanchthon was especially prominent.

Educated at the Latin school of Pforzheim (1507–8), the University of Heidelberg (1509–11), and at Tübingen (1512–14), where he began teaching, Melanchthon published "Rudiments of Greek Grammar" ("Institutiones grammaticae Graecae") the first of his many textbooks for elementary schools and universities in 1518.

On August 29, 1518, four days after meeting Luther on his arrival to Wittenberg, Melanchthon gave an inspired inaugural address, "De corrigendis adolescentiae studiis" (On Correcting the Studies of Youth), which attracted the interest of Luther, who was to become his friend and colleague. Melanchthon had already seriously questioned scholastic theology and ecclesiastical morality through his own readings in Wessel, William of Ockham, Aristotle, and the Bible. He turned to the study of theology and received his bachelor's degree in Wittenberg in 1519, the same year he assisted Luther with the debates at Leipzig. His was the voice of clear arguments against the primacy of the pope.

Melanchthon was never ordained, although he received his degree in theology and taught the subject. His "Loci communes rerum theologicarum" (Commonplaces of Theology), first published in 1521, and his lectures on St. Paul's Epistles to the Romans, were the first systematic statement of Protestantism and provided logical, argumentative force to the Reformation.

While Luther was away at Wartburg Castle, Melanchthon served as leader of the Reformation. Luther had said to Melanchthon, when he was summoned to Worms: "my dear brother, if I do not come back, if my enemies put me to death, you will go on teaching and standing fast to the truth; if you live, my death will matter little."

In 1526, Melanchthon became professor of theology and was sent to unify the constitutions of the newly reformed churches with 27 other commissioners. At the Diet of Augsburg in 1530, with Luther still outlawed, Melanchthon delivered the "Confession," a conciliatory effort to delineate 21 articles of faith drawn up with Luther's help. His "Apology" followed a year later. For his work in training teachers, writing textbooks, and reorganizing schools and universities, Melanchthon was



named "Preceptor of Germany." His "Unterricht der Visitatoren" ("Instructions for Visitors"), a basic school plan, was published in 1528. Enacted into law, it established a Protestant public school system in Saxony. Melanchthon also helped to establish universities at Marburg, Königsberg, and Jena, and instituted fundamental reforms in Greifswald, Wittenberg, Cologne, Tübingen, Leipzig, Heidelberg, Frankfurt-Oder, and Rostock.

Melanchthon developed beliefs contrary to true Lutheranism and was later accused of crypto-Calvinism, being more rationalistic and humanistic than evangelical in his tolerance of Catholic ceremony ("adiaphora," matters of no great consequence to the acceptance of evangelical doctrine). He broke with Reuchlin, who remained a Catholic Humanist, and was accused of heresy by antihumanist Lutheran theologian, Flacius Illyricus.

Luther died in 1546; Melanchthon in 1560. Both were buried in the "Schlosskirche" in Wittenberg where pilgrims can view their professorial houses, now museums, and other remnants of the Reformation and the history of Wittenberg University.

The University of Halle, founded by Frederick III, the elector of Brandenburg (later King of Prussia) in 1694 as a center for Protestant theology, has been called the first "modern" university. It renounced religious orthodoxy in favor of objectivity and rationalism, scientific attitudes, and free investigation. Canonical texts were replaced by systematic lectures and disputations by seminars. German instead of Latin was the language of instruction; an elective system replaced the formalized curriculum. Professors were given virtual control of their class rooms. This relative liberalism was adopted by the University of Göttingen a generation later, and by most American universities. Jurist Christian Thomasius and theologian August Hermann Francke were distinguished faculty members,

and the university was always innovative and progressive. At the Francke Institute in 1717, J. Juncker opened the first university clinic; in the middle of the 1800s Dorothea Christiane Erxleben was the first woman in any German university to receive a doctoral degree.

The French Emperor twice suppressed the university during Napoleonic Wars, and the victor, the Prussian king, could not afford to keep both universities running. The Universities of Wittenberg and Halle were merged in 1817. The university was renamed Martin Luther University of Halle-Wittenberg on November 10, 1933 under the National Socialist dictatorship of Adolf Hitler. The university was under the Soviet Ministry and German Democratic Republic Ministry of Education from 1946 to 1990 and went through the same problems as other universities in the eastern sector: faculty loss; ideological reorganization; upheavals and student unrest, yet managed to stay open and expand.

In April 1993, through the integration of the "Pädagogische Hochschule" (teacher's college) of Halle-Köthen, and the division of the Technical College of Merseberg, the mathematics-science potential of the university became augmented. For the first time in its history, the university was able to offer an engineering component. Because of its new faculty, the university will be able to formulate more interdisciplinary curricula and institutions.

**Further Reading:** There have been many books written about the German Reformation, Martin Luther, and Melanchthon. D.H. Lawrence provides vivid sketches of the Reformation and its people in *Movements in European History* (London: Oxford University Press, 1921).

—Carol Shilakowsky

# MASSACHUSETTS INSTITUTE OF TECHNOLOGY

## (Cambridge, Massachusetts, U.S.A.)

- Location:** On the banks of the Charles River in Cambridge, Massachusetts.
- Description:** A private university enrolling approximately 10,000 students at the undergraduate and graduate levels.
- Information:** Mr. Michael C. Behnke  
Director of Admissions  
MIT, Room 3-108  
77 Massachusetts Avenue  
Cambridge, MA 02139-4307  
U.S.A.  
(617) 253-4791
- Visiting:** Tours depart from the Information Center at 10 A.M. and 2 P.M., Monday through Friday, except holidays. For more information, telephone the Information Center at (617) 253-4795.

From its beginnings, the Massachusetts Institute of Technology—private, independent, and nonprofit—has been the antithesis of the isolated ivory tower. Its mission is pragmatic, linked to current events and the solving of real-world problems. The MIT emblem depicts the scholar and the craftsman side by side, and the school has as its motto *mens et manus*—mind and hand. The school's mascot is the beaver, to represent industriousness and renown for its engineering and mechanical talents.

The reason for MIT's success is simple: its scholars are, and have been since its inception, on the cutting edge of research. The school's roster of firsts is long and distinguished: MIT researchers created the first chemical synthesis of penicillin and Vitamin A; they developed new types of artificial limbs, high-speed photography, and magnetic core memory, which led to the creation of digital computers. In classrooms and laboratories, students and professors diagrammed bridges and highways, designed skyscrapers, developed sophisticated navigational and electronics equipment and, during the Cold War, created missile defense systems.

Boston Tech, the forerunner of the Massachusetts Institute of Technology, was founded in 1861, when wooden ships still plied the Atlantic and horse-drawn carriages rattled over cobblestone street near the school's original Boston campus. Today, the school can proudly boast of being "the only private U.S. university

that is federally designated as a land grant, sea grant, and space grant institution."

The school was founded by William Barton Rogers, ■ scientist and educator. Rogers had graduated from the College of William and Mary in Virginia. His father taught natural history but William was not primarily interested in ■ career as ■ traditional classroom teacher. He was captivated instead by the era's enterprising industrial spirit. Rogers was also influenced by ideas advanced a century earlier by Benjamin Franklin, who had foreseen the need for schools devoted to science and technology. Rogers took the idea one step further, envisioning an industrial school that would approach science, steel making, and bridge building with the same sophistication and depth that Harvard College had already brought to the study of the humanities.

The school's beginnings were halting, but were sustained by its founder's tenacity and vision. In 1859, Rogers asked the Massachusetts legislature for permission to start a polytechnical school. The legislature rejected Rogers's first two proposals, but agreed, in 1861, to grant the school a charter after Rogers had persuaded benefactors to donate \$100,000. Two years later, the school qualified for a portion of the federal land-grant money which the state had received through the Morrill Act, though plans for building were delayed by the Civil War. On February 20, 1865, just as the war was ending. Boston Tech's first students began classes in ■ rented section of the downtown Boston Mercantile Building. Rogers was named Boston Tech's first president.

The school originally had three sections: ■ society of arts—a short-lived program in which inventors and industrialists lectured students; a museum of technology, which acquired only a few trinkets and quickly faded away; and a school of industrial science, which prospered and gradually grew into the modern university. The industrial school focused on finding ways to use science for the betterment of industry, business, and society, making Boston Tech unique among its contemporary trade schools for linking theoretical science to applied uses. Other schools, meanwhile, concentrated simply on teaching students.

The school, called Boston Tech for its first 55 years, centered on Rogers's pioneering emphasis on scholarly laboratories, in which teachers used diagrams to clarify lecture topics and involved students in the performance of experiments. The laboratories' purpose was two-fold: to provide a setting for instruction, and to allow the class, led by the teacher, the chance to break new ground in research.



*Massachusetts Institute of Technology*

Success, setbacks, and new opportunities came quickly for the school. In 1869, two professors, Charles W. Eliot and Francis H. Storer, revolutionized the teaching of inorganic chemistry by publishing a popular textbook. Only a year later, Rogers suffered a stroke and stepped down as president, just as the school awarded its first 14 degrees. Rogers assumed the presidency again, from 1879 to 1881. He died in 1882.

John Daniel Runkle was acting president during Rogers's absence, and had to deal with an early threat to MIT's independence. Charles Eliot had become Harvard's president in 1869, and the following year proposed a merger with Boston Tech. Runkle declined. Harvard didn't give up, though, and made another unsuccessful bid for Boston Tech in 1878.

In 1904, Eliot proposed yet another plan for merger of the two schools. This time, Boston Tech's governing body, the Corporation, ignoring alumni and faculty disapproval, accepted. But the Massachusetts Supreme Court blocked the merger, saying it violated school charters. At

last, in 1959, Harvard and MIT forged a durable compromise, establishing a Joint Center for Urban Studies.

Women had, almost from the beginning, been allowed to take classes at Boston Tech's Lowell Institute evening classes, though their futures in the technical field were assumed to be limited. In 1871, Ellen Swallow was admitted as the school's first regular woman student. She would later become a faculty member and founder of the home economics movement.

Another graduate, Katherine Dexter McCormick, helped lead the women's suffrage movement and, after women won the right to vote in 1920, was elected vice-president of the League of Women Voters. It was not until the 1960s, however, that large numbers of women were enrolled at the school.

As the end of the nineteenth century approached, inventors discovered new ways to harness electricity. In the 1870s scientists had devised methods to derive power from electrical generators and motors. In 1879, Thomas A. Edison unveiled his incandescent lamp and an accom-



panying dynamo, which fed electricity to the lamp. Three years later, Edison opened the world's first central electric power plant in New York City.

Boston Tech soon absorbed the new techniques, causing major changes in the school's focus. The same year Edison's power plant opened, MIT's Charles Cross, an 1870 graduate, established the school's first electrical engineering course. By the end of the decade, Boston Tech was also offering its first course in chemical engineering, a discipline which focuses on finding uses for natural products such as coal, gas, and water. In 1887, Edison donated equipment to the school for use in the teaching of electrical engineering. The famous inventor later declared, "I have found the graduates of the Boston Tech have a better, more practical, more useful knowledge as a class than graduates of any other school in the country."

But even as its scholars were working on the cutting edge of technology, Boston Tech's campus was becoming outdated. In 1909, the school's sixth president, Richard Cockburn Maclaurin, a physicist and mathematician, decided to move the school to Cambridge. He chose a site along the banks of the Charles River with a view of the stately homes on Boston's Beacon Hill.

Welles Bosworth, a Boston Tech graduate, designed the buildings at the campus's center. Bosworth created a concrete dome for the library, in imitation of the dome Thomas Jefferson had designed for the University of Virginia. Bosworth added some of his own touches as well. He linked the buildings together via an "infinite corridor" in order to demonstrate that the school's diverse specialties are driven by a common purpose.

The "infinite corridor" connects five of the school's main buildings and is about three football fields long. Twice a year, its axis coincides with the elliptical plane, which is the sun's apparent path through the sky. When the alignment occurs—at 4:19 P.M. on November 12 and 4:49 P.M. on January 31—sunlight fills the corridor. Hundreds of students and professors line the hall for the event. Later additions to the Cambridge campus were designed by some of the century's most noted architects, including Alvar Aalto, Eduardo Catalano, Eero Saarinen, and MIT graduate I.M. Pei.

In 1916, the newly renamed Massachusetts Institute of Technology held a gala celebration to christen the new campus. A 21 gun salute greeted 500 New York alumni who arrived. The playfulness that characterizes many MIT activities was also evident. A group of MIT's first graduates from 1870 walked slowly with the aid of canes until, suddenly, they tossed them aside and nimbly jumped rope.

The alumni in question were drawing on an old, still living tradition of pranks, or, as they are known on campus, "hacks." A hack differs from an ordinary college gag. Hacks are clever, harmless jokes. Famous MIT hacks include the emergence of an expanding balloon from the

football field during a Harvard-Yale football game, the placement of a mock police cruiser atop the library dome (complete with a box of jelly donuts on the front seat) and the measurement of the Massachusetts Avenue Bridge in "Smoots," the height of a fraternity brother named Smoot. Smoot's old fraternity still makes sure the measurements are fresh and readable.

With the onset of World War I, MIT was in a better position than ever to fulfill William Rogers's goal of practical usefulness. The United States severed diplomatic ties with Germany in 1917, and MIT President Maclaurin immediately wired the War Department and promised MIT's help. The school immersed itself in war-related research, creating training programs for pilots and flight and radio engineers.

The period between the world wars was a period of photographic innovation at MIT. In 1934, Harold Edgerton and Kenneth Germehausen devised a new form of electrical circuitry that paved the way for high-speed photography. Edgerton also perfected the modern stroboscope, which emits light beams as narrow as .1 millionth of an inch as often as 100 times per second. The device had many scientific applications, but it was also utilized for art. The stroboscope enabled photographers to take clear pictures of a speeding bullet or step-by-step photos of a single golf swing. Most school children have encountered such pictures in their science texts. A number of Edgerton's photos were considered both artistically and scientifically significant.

During World War II, former MIT Dean of Engineering Vannevar Bush was appointed to the commission responsible for war-related activities. Bush, who had invented a predecessor of the analog computer, played an important part in guiding the nation's wartime science policy and helped position MIT for its integral role in the war, which solidified the school's reputation as a topflight research institution.

The core of MIT's war effort was its radiation laboratory, known on campus as the Rad Lab. Primarily, it focused on the development of radar, a crucial instrument that gave the Allies a key advantage over the Axis powers. Though radar was not itself invented at MIT, many of the major advances were made there. The Rad Lab laboratory started small, taking up about 15,000 square feet, but quickly developed into a massive facility. At its peak, it took up 15 acres and had a staff of 4,000. Only the Manhattan Project atomic bomb research team was larger. Though research on the atomic bomb was conducted elsewhere, the school provided much of the expertise that made the Manhattan Project a success.

The Rad Lab made major contributions to the Allied war effort. It turned out a total of 150 military systems, including devices that could spot enemy submarines and airplanes, and enabled bombers to hit targets at night. Edgerton developed ultra-high speed stroboscopic photography for night reconnaissance. Charles S. Draper

devised a more accurate gunsight and, after the war, started MIT's instrumentation laboratory, which developed rocket-steering systems later used in the Apollo space program. Immediately after the war, MIT formed the research laboratory of electronics, a peacetime version of the radiation laboratory. At the same time, the school created the laboratory for nuclear science and engineering.

During the war, MIT's Jay W. Forrester had begun work on what would become the Whirlwind I computer, the largest, fastest, and most powerful of the early electronic computers. It included a device that translated symbolic commands and performed tasks. In the 1950s, Forrester used Whirlwind as the basis for an early-warning air-defense system.

The war had solidified MIT's contractual relationship with the government, and, in its aftermath, administrators developed similar links with industry. In 1948, the school created the industrial liaison program, which called for corporate sponsors to pay MIT researchers for working on their companies' technical problems. Scholars at MIT had sometimes to extend themselves beyond the institution's customary areas of expertise, but administrators justified the work by saying the income kept the school independent.

Meanwhile, university researchers continued their trailblazing work. In 1948, Claude Elwood Shannon, an MIT Ph.D. recipient who was later an MIT professor, developed a mathematical theory of communication that would be known as information theory. His work focused on the myriad language options from which people select to communicate. This work, of major importance to the study of communication, also opened new paths of research in mathematics. Practical applications were soon found in the areas of telecommunications and automation.

The Cold War's Soviet threat brought many government contracts to MIT. In 1952, MIT's Lincoln Laboratory—a Lexington, Massachusetts-based, federally-sponsored center for research on electronics—developed plans for a computer system that would alert the United States in the event of a military attack. Six years later, the Lincoln Laboratory used radar astronomy to map Mars's surface and Venus' atmosphere.

In 1956, William Shockley became the first MIT alumnus to win the Nobel Prize, for his development of the transistor radio. Many others followed, including Charles H. Townes (1964, for the invention of the laser), Robert S. Mulliken (1966, for chemistry), and Paul Samuelson (1970, for economics), who also wrote a best-selling economics textbook. To date, 28 individuals associated with the school as faculty, staff, and alumni have won Nobel Prizes. Twelve of these individuals are currently on the faculty and one on staff.

Nor is the Nobel Prize the only measure of MIT's international reputation. The school boasts numerous

faculty at the top of their respective fields, one of the best known being Avram Noam Chomsky, a linguist who was also an outspoken opponent of the Vietnam War. Chomsky revolutionized linguistics studies by focusing on explanatory principles instead of methods of classification, the typical subject of study. His writings include books on the Vietnam War (*American Power and the New Mandarins*, 1967), on Middle East (*Peace in the Middle East*, 1974), and on terrorism (*The Culture of Terrorism*, 1988).

Massachusetts Institute of Technology has stayed on the cutting edge. During the 1950s, Bob Mann, the head of the school's Design Center, began assigning students to design tools for use by the disabled. Such assignments gave students a chance to work with real-life needs in mind. This line of research led, naturally enough, to the design of artificial limbs. One of the most interesting projects was the design of an artificial knee, one that would be able to respond to the thought commands of its user. More than 20 years of research and advances in technology led finally, in 1990, to the development of a working model.

The university continues to break ground in other areas as well. In the late 1950s, Richard Feynman, Nobel-list and MIT graduate, had predicted the design of incredibly small devices. Though the public may since have grown blasé about microchips, researchers at MIT are currently working on techniques that would enable them to engineer at the molecular level. Should this research prove successful, the practical consequences would be profound. Tiny, extremely sensitive devices could be designed that would do everything from detecting diseases and pollutants to making suggestions during food preparation.

While quantifying an institution's reputation is difficult, the school's statistics remain impressive. A Gallup Survey of international leaders ranked MIT as one of the leading universities in the world, in a class with Oxford, Cambridge, Princeton, and the Sorbonne. Massachusetts Institute of Technology registers more patents each year than any other American university. In 1995, MIT had the top-ranked graduate school in management and engineering, and was tied for first place with four other graduate programs in economics, according to *U.S. News and World Report*. In a survey of Ph.D. rankings, the MIT program in economics shared first place with Harvard, Princeton, Stanford, and the University of Chicago. The MIT Sloan School of Management ranked first in academic reputation and placement success. Among engineering schools, MIT ranked first in aerospace, chemical, civil, mechanical, and nuclear engineering.

With the benefit of hindsight, William Rogers's early predictions of the school's success seem prophetic. Years before his initial proposal to the Massachusetts legislature, Rogers had envisioned the future of the institution he was to found:

I doubt not that such a nucleus-school would, with the growth of this active and knowledge-seeking community, finally expand into a great institution comprehending the whole field of physical science and the arts with the auxiliary branches of mathematics and modern languages, and would soon outshine the universities of the land in the accuracy and the extent of its teaching in all branches of positive knowledge.

MIT's adaptability and innovation have allowed it to realize Rogers' vision, and make it one of the world's most important universities. The school has diversified to such a degree—in architecture, economics, business management, computers, and oceanography—that, at the end of the twentieth century, it is helping to lead the country out of the industrial age and into a new, high-tech global economy driven by computers and high finance. The

school now offers degrees in the humanities and social sciences, but it is its focus on industry, technology, and science that has shaped its mission, and that accounts for its stellar reputation.

**Further Reading:** Samuel C. Prescott's *When M.I.T. Was "Boston Tech"* (Cambridge, Massachusetts: Technology Press, 1954) gives a detailed history of the university from its founding in 1861 to its move to Cambridge in 1916. *M.I.T. in Perspective*, by Francis E. Wylie (Boston: Little Brown, 1975), provides a more general overview up to the mid-1970s. Those wishing an overview of more recent achievements at MIT may consult *Up the Infinite Corridor: MIT and the Technical Imagination*, by Fred Hapgood (Reading, Massachusetts: Addison-Wesley, 1993).

—Bill Coyle



# McGILL UNIVERSITY

## (Montreal, Canada)

<b>Locations:</b>	On the historic main campus at Sherbrooke Street West and elsewhere in and around the city of Montreal.
<b>Description:</b>	Private Anglophone university chartered in 1821; now with about 30,000 students.
<b>Information:</b>	McGill University 845 Sherbrooke Street West Montreal, PQ H3A 2T5 Canada (514) 398 4455

McGill University, an Anglophone institution in a largely Francophone province, has long since weathered the political, legal, and religious controversies that surrounded its foundation in the early nineteenth century, to become one of the leading universities, not only in Quebec but in the developed world. Its survival and flourishing are the result of the generosity and goodwill of its many benefactors among the former Anglophone commercial and professional elite, and of the uniquely bilingual and multicultural character of Montreal.

The university's origins are complex and not a little bizarre. While most sources agree on assigning its foundation in the year 1821, when its first royal charter was issued, a law providing for its creation and financing had actually been passed 20 years earlier. The history of McGill can therefore be said to have started in 1801, when Montreal, the largest city in what was then called British North America, was the metropolis of Lower Canada (roughly equivalent to modern Quebec). That province, then as now, was largely populated by French-speaking Roman Catholics and was governed from Quebec City, but the numbers of English-speaking immigrants were already rising sharply, especially in Montreal itself, while the only institution of higher education in the province, the Séminaire de Québec, located in Quebec City, was controlled by the Catholic Church and was exclusively Francophone. The legislature of this divided society was unexpectedly given control of the large estates formerly owned by the Society of Jesus (the Jesuits), which the Catholic Church had just dissolved (temporarily, as it turned out), and passed a law to establish a Royal Institution for the Advancement of Learning. This Anglophone learned society would be based in Montreal and would operate a university col-

lege under a provincial charter, as well as three grammar schools to prepare students for entry to it.

The schools were duly established, but the college was not. The sponsors of the Royal Institution had a great deal of enthusiasm and some expertise to offer, but their ambition to use the new institutions to teach English to Francophones made them unpopular, and they lacked the funds to activate the charter, largely because of the £49,000 available from the Jesuit Estates Fund between 1801 and 1831, £37,000 disappeared into spending for "general purposes" (including bribery and corruption), leaving barely enough for the three schools for younger students. The French colonists who had endowed the Jesuits cannot have dreamt that the revenue from their lands would eventually either line the pockets of Protestant politicians or be spent on educating Protestant boys.

In 1813, while the Royal Institution was still being starved of funds, the Protestant elite in Montreal received news of the death of one of their number, the Honorable James McGill. He had been born in Scotland in 1744 but had settled in the city in the 1770s, becoming one of its prominent and wealthy fur traders. In his will he assigned to the Royal Institution a remarkable bequest of £10,000 and a 46-acre estate (Burnside Place), providing that the money was to be spent on a university, one college of which was to be named for himself, to be built on the estate. Its location on sloping ground between Mount Royal and the St. Lawrence River promised to put the college close to the center of the city's business and social life, and it seemed that at last the legislation of 1801 could be put into effect. Accordingly, the sponsors established themselves as trustees of the bequest, formally opened the Royal Institution in 1819, and in 1821 proceeded to establish the University of McGill College under a new charter, granted by King George IV of Britain.

However, these were empty gestures. In the meantime, relatives of McGill's wife's first husband had taken charge of Burnside Place and McGill's money and refused to surrender them. The charter had become legally necessary to ensure that the ten-year limit which McGill had placed on his bequest could be observed, but it took nine years of court cases (1820–29), proceeding all the way to the Privy Council in London (then the highest court for colonial disputes), for the trustees to obtain Burnside Place, and then another eight years (1829–37) for them to obtain all the £10,000 bequeathed 24 years earlier. This bizarre and expensive litigation rendered both the Royal Institution and the college little more than letterheads, although one faculty was established in the



*McGill University*

interim, in 1829, by the simple expedience of ceremonially taking possession of the estate and announcing that henceforth the Montreal Institute of Medicine, founded quite separately in 1821, would be known as the medical faculty of the college. The medical faculty, the only part of the college which had any staff or students at all, did not use a building on the estate until 1833 and departed to a more convenient site in 1841.

In 1839 the trustees, celebrating victory in the last of their legal battles, at last initiated the building of the rest of the college at Burnside Place, although there were still some more complications to sort out before they could proceed. They could only afford to do so by selling off part of the land, accepting a grant from the provincial government, and persuading Queen Victoria, the college's visitor (a kind of one-person court of final appeal, peculiar to universities in the British tradition), to dismiss the Reverend John Bethune, the profligate and barely educated principal whom they had appointed to help prepare for the new institution. In 1843 they formally established the faculty of arts, with just 20 students, in the building which the faculty still occupies today.

In 1852, under a new royal charter issued by Queen Victoria, the Royal Institution was merged into the college. As a result the members of the university's board of governors, which controls its finances, also serve formally as trustees of the Royal Institution even today. From the outset, they largely restricted themselves to financial administration, enhancing the endowment by attracting further gifts and bequests from William Molson, head of the brewing dynasty; Sir William Macdonald; Lord Strathcona; and other leading members of the Anglophone commercial community in Montreal.

As for academic affairs, the governors saw to the establishment of a law faculty in 1853, and then placed most matters in the capable hands of Sir William Dawson, a geologist from Nova Scotia who was principal of the college from 1855 to 1893. Dawson's own work as a practitioner and promoter of scientific thinking helped to make McGill better known. He was one of the founders of the Royal Society of Canada, and he was the only person ever to preside over both the British and the American Associations for the Advancement of Science, but he was perhaps better known in his lifetime for his work on fossil plants and his stubborn resistance to Charles Darwin's theory of evolution by natural selection.

As principal of McGill, Dawson was effectively at the pinnacle of the system of Anglophone Protestant schooling in Lower Canada, providing education for a small but relatively prosperous and influential minority separately from the Francophone Catholic population, who were served by their own school system and, also from 1852, by Laval University in Quebec City (successor to the Grand Séminaire de Québec). Dawson and his colleagues took their responsibilities seriously. Not content with just training high-achieving students for the professions, the

central function of universities since the twelfth century, they proved themselves true Victorians with a number of significant innovations, responding both to the wishes of benefactors and to the increasingly complex needs of the rapidly developing Anglophone community, most of whose members retained a deep-seated loyalty to Britain and to Protestantism. In 1861 they used a large gift from William Molson to fund the creation of the first of McGill's many libraries. In 1865, 1873, 1876, and 1880 respectively they welcomed the theological colleges of the Congregational, Presbyterian, Methodist, and Episcopalian churches as affiliates. In 1878 they opened a faculty of applied science, complete with laboratories and trained technicians, and supplemented it in 1882 with the Redpath Museum, the first purpose-built museum of natural history in Canada. Today, it is perhaps better known as the place to see skulls and other remains from the Iroquois settlement, Hochelaga, which stood on the campus site in the late sixteenth century, as well as an oyster shell, found by Dawson himself on Mount Royal, which proved that the region was once under the sea. They created the McGill Normal School, to train teachers for the Protestant education system, and started a network of colleges capable of preparing students for McGill examinations, on the pattern of the University of London. They admitted women students to the university, from 1884 onwards (as did the University of Toronto), just four years after London had become the first university in the British empire to do so.

The many distinguished men and women who graduated from McGill during Dawson's era made their own contributions to Canada's development, both before and after Lower Canada, renamed Quebec, joined in founding the new country in 1867. The principal's own son, George Mercer Dawson, was the leading surveyor of Canada's two borders with the United States (along the 49th parallel and with Alaska) and of the route of the Canadian Pacific Railway, the completion of which was the condition for British Columbia's also joining Canada (rather than continuing as a separate colony or even, as many had predicted, joining the United States). The bill to fund the railway was sponsored in the federal parliament by a fellow-alumnus, Sir James Alexander Grant, who was not only a politician but a wealthy and influential doctor whose patients included governors-general of Canada and Princess Louise of Britain. Another McGill-trained physician, William Osler, taught at the university before finding greater fame as the author of *The Principles and Practice of Medicine* (1892), a standard textbook throughout the English-speaking world until the 1920s.

While most McGill alumni, then as now, came from Anglophone backgrounds there was an important minority of students from the Francophone population even in Dawson's day, many of them defying the hostility of parents, friends, or priests to gain access through McGill to



the rest of the world's second largest country. Perhaps the most prominent among them remains Sir Wilfrid Laurier, the first French-Canadian to serve as federal prime minister (from 1896 to 1911). Like his successors Louis St. Laurent; Pierre Trudeau; or Jean Chretien, in more recent times, he was vilified both by nationalists on the Francophone side and by anti-Quebec elements on the Anglophone side of Canadian society, but he succeeded in making ■ lasting impact. He was responsible for the financing of Canada's second transcontinental railway, the creation of the provinces of Alberta and Saskatchewan, and the compromises on schooling in the western provinces which did much (though critics said not enough) to protect the interests of Francophones there. His unsuccessful moves to introduce free trade with the United States and downplay Canada's dependence on Britain were derided at the time as, among other things, evidence of his having been corrupted by McGill's cosmopolitan atmosphere, but they can now be seen to have been simply too far ahead of their time.

Meanwhile back at the campus, James McGill's remains had been transferred in 1875 from the Old Protestant Cemetery to a new grave, marked by a ginkgo tree, in front of the arts building, and in 1885 the college had taken the name McGill University. Dawson's ambitious program of modernization, analogous to similar reforms at London, Oxford, Cambridge, or Harvard, was continued by the next principal, Sir William Peterson. When he took over in 1893 the university had more than 1,000 students, and was already renowned for having the most advanced laboratory equipment of any university in the world.

Peterson appointed Ernest Rutherford to a professorship in 1898. Rutherford's experiments at McGill, conducted in collaboration with Frederick Soddy (also an eventual Nobel laureate), and his preparation of the classic text *Radio-Activity*, published in 1904, give McGill some claim to being the place where nuclear physics was born, even though Rutherford returned to Britain in 1907. Peterson also helped to establish three more affiliates. Of these, McGill College in Vancouver has since become independent, as the University of British Columbia; Macdonald College, founded in 1907, continues to thrive on its own extensive Montreal site, where it specializes in agriculture and food science; and Royal Victoria College, opened in Montreal in 1899 with funds from Lord Strathcona, has lost its teaching function and is now a residence for women students.

Two great fires on the campus, both unexplained, occurred in 1907. The buildings housing the medical and engineering faculties were both completely destroyed, but were quickly replaced with gifts from the university's increasing number of benefactors. By 1915 the university's endowment, continually enhanced by the Molsons, Macdonald, Strathcona, and others, stood at 6.7 million Canadian dollars, which made it one of the richest educa-

tional bodies in Canada, let alone in Quebec, where the Francophone Laval University (then on two sites, in Montreal and Quebec City) had just 15,000 Canadian dollars. Expansion continued throughout World War I, when many McGill alumni went to fight in Europe. They are commemorated by the university's sports stadium, which is named for Captain Percival Molson, who died in battle in 1917.

In 1920 McGill's finances were further enhanced with its first major grant from the provincial government, a fund of 1 million Canadian dollars given partly because Laval University and the new Francophone University of Montreal had each received the same amount and the politicians feared accusations of discrimination. McGill continued to prosper between the two world wars, notably during the principalship of Sir Arthur Currie, who had been the commander of the Canadian soldiers in World War I and who therefore had unparalleled connections in the federal capital, Ottawa. The university's scientific schools in particular benefited from greater interest among benefactors and students alike. Otto Maass, himself a graduate of McGill, was at the forefront of the university's increasing interaction with government and commerce, serving not only as Macdonald Professor of Chemistry and supervisor of McGill's first graduate students in science, but also as a leading member of the Defense Research Board and president of the Pulp and Paper Research Institute. The interwar years also saw, for example, the creation of the McGill Social Science Project, set up by Leonard Marsh in 1930, which quickly made its name as the source of controversial reports on many aspects of Canadian life.

Student numbers more than doubled between 1939, the year that Canada followed Britain in declaring war on Nazi Germany and Fascist Italy, and 1948, rising from 3,400 to more than 8,000. Mature students returning from military service made up a large proportion of the increased enrollment. Cyril James, principal from 1940 to 1962, shrewdly used this rise in the numbers and composition of the student body to argue successfully for increased funding from the federal government and to persuade it, and other benefactors, not to neglect the humanities or social studies while building up the politically more fashionable and commercially more relevant science faculties.

During the 1960s and 1970s McGill was affected, although to a less extent than the Francophone universities, by the combined impact of worldwide student revolt and Quebec's "Quiet Revolution," which saw the secularization of education, the rise of the separatist Parti Québécois, and eventually, after it came to power in the province in 1976, the flight of around 100 major corporations from Montreal to Toronto. McGill, long since oriented far more toward the whole of Canada and to other English-speaking countries more than to Quebec itself, was insulated from events to some extent, although it had

to fight proposals to link provincial funding with increased use of French. During these years many Canadians, both at McGill and beyond, came to appreciate that this Anglophone but cosmopolitan university has contributed just as much to the special character of Montreal—which differs in significant ways from Quebec City or the countryside—as the Université de Montreal, where the nationalist mood was more prevalent. It was also in this time of change that Leonard Cohen, another McGill alumnus, first found fame through the poems and songs which have formed his own distinctive contribution to the continuing Quebec renaissance.

Today, McGill is at peace with the city and the province. Perhaps its combination of federal, provincial, and private funding has so far avoided excessive interference by any one of these three sources. As in the days of Sir William Dawson, Ernest Rutherford, or Otto Maass, its staff and students can still work on research of importance far beyond the boundaries of Montreal or Quebec. The days when it could be dismissed as a bastion of British imperialism, or of Anglophone arrogance, are long

gone, and all but the most extreme separatists have accepted that it plays a valuable dual role. McGill is the university of choice for the Anglophone minority, which may be less wealthy or powerful than in Victorian times but is still an integral part of the Montreal scene; and it serves Quebec as one of many vital links to the rest of Canada, and to the United States, with which Quebec must cooperate whether it remains part of Canada or not.

**Further Reading:** Stephen Leacock's *Montreal: Seaport and City* (Garden City, New York: Doubleday, 1943) still evokes the city's history and atmosphere at least as well as more recent publications and includes an entertaining chapter on McGill. More specific and detailed histories include Stanley B. Frost's two-volume work *McGill University for the Advancement of Learning* (Montreal: McGill-Queen's University Press, 1980–84).

—Monique Lamontagne

# MICHIGAN STATE UNIVERSITY

## (East Lansing, Michigan, U.S.A.)

<b>Location:</b>	East Lansing, Michigan, 90 miles west of Detroit.
<b>Description:</b>	A state university enrolling approximately 40,000 students in undergraduate, graduate, and professional schools.
<b>Information:</b>	Office of Admissions and Scholarships 250 Administration Building Michigan State University East Lansing, MI 48824 U.S.A. (517) 355-8332
<b>Visiting:</b>	The MSU Student Alumni Foundation conducts campus tours year-round, except during term breaks, registration, holiday weekends, and final examination weeks. Call (517) 355-4458 for more information.

One of the initial public calls for the founding of a college to teach future farmers in Michigan was made at the state's first public exhibition and celebration of agriculture. At the first Michigan state fair in 1849, orator E.H. Lothrop noted that although 90 percent of the state pursued agriculture as a profession, there existed no school that taught the art and philosophy of this vocation.

The impetus behind Lothrop's speech had come from the Michigan Agricultural Society, founded in the same year. One of its main goals was to establish a college where students could learn scientific agriculture. Under the leadership of secretary John C. Holmes, the Michigan Agricultural Society petitioned the state legislature for an agricultural college.

The Michigan state legislature, in turn, petitioned the United States Congress for a land grant. Previously, land had only been granted to each state as it was admitted to the union for the establishment of one university to prepare men for the learned professions. Such a university was founded in Michigan during its admission as a state in 1837. The University of Michigan trained men in nearly every field except that in which four-fifths of the state's population was engaged—farming.

Before the gift of land from the national government, the state included in its second constitution a provision that "the Legislature . . . shall, as soon as practicable, provide for the establishment of an Agricultural School." Although both the University of Michigan and the Michi-

gan Normal College (now Eastern Michigan University) wanted the agricultural college, the state's agricultural society decided that a separate school should be established. On February 12, 1855, Michigan Governor Kingsley S. Bingham signed the law that founded the Agricultural College of Michigan.

The college formally opened on May 13, 1857, with dedication services held in the chapel of College Hall. Located where the landmark Beaumont Tower now stands, College Hall was the first building in the United States built specifically for instruction in scientific agriculture. The day after the services, 63 students started classes. This number, almost unprecedented for the opening day of a new college in the United States, grew to 81 in a few weeks.

The unique curriculum of the school was comprised of two-thirds science and one-third liberal arts classes. "Agriculture" was not one of the classes offered by the school. At that time, agriculture was a newly emerging field of study and had no precedent in the curriculum. Most of the students had already acquired basic farming skills at home. In the classroom they were to learn the theoretical scientific principles upon which agriculture was based, in classes such as animal and vegetable anatomy and physiology, mineralogy, botany, chemistry, and veterinary science. They learned to apply these principles in laboratories, experimental farms, and eventually during a lifetime of farming.

Manual labor was required of all students—and of professors—from the first day of classes until 1896. Students spent nearly as much time in the fields as they did in the classroom, about 15 hours a week. They earned up to eight cents a day for performing specialized tasks under the watchful eyes of their professors. At first, these tasks largely consisted of removing stumps, clearing the land, and even constructing and repairing the buildings of the college itself.

For the first decades of its existence, the college suffered an identity crisis: few people in the state knew it was a college. The campus at that time barely resembled a civilized settlement, much less an institution of higher learning. It covered 676 acres of forest about three miles west of the state capital, Lansing, itself no more than a small frontier village. In addition to its primitive location, the college faced serious financial problems in its first years. The state board of education, at the time the governing body of the college, believed that the experimental farms would make the school a self-sustaining institution. In order to control spending, in 1860 the board converted the college to a two-year vocational school that would





*Michigan State University*

teach only farming skills, ignoring the "extraneous" liberal education then offered.

The college received a new lease on life when, in the midst of the Civil War, President Abraham Lincoln signed the Morrill Act. This act provided land grants to support in each "loyal" state a college "where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The prototype for the 72 land grant colleges and universities would be the Agricultural College of Michigan, the school that had initiated the petitions that led to the Morrill Act. The state received 250,000 acres of land. The land was sold and the profits deposited in an endowment fund that secured the financial future of the college. The state senate, led by Michigan State's first president, Joseph Williams, then restored the four-year curriculum.

Finally on solid financial footing, the college grew rapidly, at first focusing on scientific agriculture and then expanding to more accurately reflect the land grant mission. The college was one of the first to admit and grant degrees to women. In 1870, ten women enrolled, studied agriculture, and worked the fields; they did not disrupt campus life and proved studious and well behaved. The general sentiment seemed to be that they were a good influence on the rest of the students. In 1896 a separate curriculum for women was established. In classes such as nutrition, meal planning, and dress design, in addition to the liberal arts classes, women were taught skills that were considered relevant to their prospective careers. To further embrace the mission of the Morrill Act, a mechanical engineering department was added in 1885.

One of the integral philosophies of the college was that it existed to enrich and educate the farming community at large, especially within the state of Michigan. In the 1860s, leading scholars and professors such as Robert C. Kedzie and William J. Beal began sharing their agricultural research with Michigan farmers. They traveled to six communities throughout the state to teach, listen to, and work with the farmers. These "Farmers' Institutes," held each year during the college's winter break, were the forerunners of an extension service that has expanded to become one of Michigan State's primary missions.

The Hatch Act of 1887 gave federal funding to establish an agricultural research station at each land grant college. In 1894 the first "Short Course" (adult continuing education) for creamery managers helped Michigan agricultural workers realize that the college was beneficial to their businesses. By 1982, the university counted 14 field stations and 3,000 research projects.

The school year initially spanned the summer months so that students and professors could work the farms and

fields on campus during the growing season. However, this schedule was found incompatible with those in the rest of the academic world and so the school year was altered to run from autumn to spring.

By the late 1890s, enrollment had dropped, and many of its outstanding professors left for other land grant institutions. The national economic depression, the ever-present malaria from the still-forested swamps, and the general rowdiness of the student body led to such a falling off of public confidence that a rumor surfaced suggesting that the governor planned to turn the college into a sugar-beet farming prison camp.

With the change in the century came the beginning of a two-decade upswing at the college, which was renamed the Michigan Agricultural College (MAC) in 1907. The manual labor requirement had been abolished, and departments of veterinary medicine (1909) and business (1925) were added. In those two decades, the number of faculty increased five-fold and the number of students quadrupled. This explosion was partly due to the school's president, Jonathan Snyder, a dogged promoter of MAC, who visited prospective students' homes whenever possible, at times traveling by bicycle if there was no livery stable in the student's town.

The college continued to expand its extension and cooperative functions during the first decades of the new century. The passage of the Smith-Lever Act of 1914 established the Cooperative Agricultural Extension Service, which provided for an agricultural agent from the school to be placed in each county. In the spring of that same year MAC held its first Farmer's Week. This annual event, which featured meetings, lectures, discussions, and demonstration sessions by livestock associations and other groups, drew great crowds to East Lansing. A farmer's day, held annually in late July, also educated, assisted, and entertained many Michigan citizens.

The college also grew physically. Private donations and gifts created Olds Hall, the union, a library (now Linton Hall), a stadium, and Beaumont Tower. Under the direction of President Robert Shaw and Secretary John Hannah in the 1930s, growth was stimulated by New Deal agencies. The National Youth Administration supplied funds for jobs for 12 percent of the student body. Funds from the Public Works Administration helped finance Abbot and Campbell Halls, the auditorium, the music building, Olin Health Center, and Jenison Fieldhouse. The Works Progress Administration backed the construction of sidewalks and roads, Farm Lane bridge, the track and field facilities, in addition to improving the union and the football stadium. Those entrusted with the building and maintenance of the campus still strove to preserve the tradition of informality in the grounds' appearance. Dedication to this ideal throughout the various expansions of the campus has resulted in what students and visitors often have judged the most beautiful campus they have ever seen.

The college's new name, changed to the Michigan State College of Agriculture and Applied Science in 1925, reflected the increasing emphasis on education beyond agriculture. From its founding and especially after the Morrill Act, the school was committed to providing a broad liberal education in addition to the one in agricultural and mechanic arts. In the first century of its existence, one of the overriding trends was toward a broader education encompassing all fields.

The man who became president of the college in 1941, John Hannah, was largely responsible for the development of Michigan State University from a relatively small agricultural college to a major American university. Hannah, who had overseen the building programs at Michigan State as its secretary during the thirties, assumed the presidency on the eve of World War II. To prepare for the war, the work of those students who were leaving for duty was accelerated, and women were trained to fill the positions the soldiers vacated. In addition, the college trained some 10,000 air cadets, engineers, language and culture specialists, and reservists as part of the massive war effort.

In the waning years of the war, Hannah began to make plans to reorganize the curriculum for the time students would return. In a 1946 interview with the *Detroit News* he said of his, and the school's, renewed philosophy of education that "our task is to make not merely better farmers or veterinarians or engineers but better citizens, capable of appreciating the finer things of life, able and willing to take their part in shaping the destiny of their country." This new philosophy was realized in the Basic College with its two-year curriculum of classes in natural science, humanities, social sciences, and English required for all students.

Michigan State continued its commitment to extension and continuing education. The Kellogg Center for Continuing Education, the nation's largest facility for hotel, restaurant, and institutional management studies, and the first major facility for adult residential education, was erected in 1951. In 1959, Alfred and Matilda Wilson gave the university their Meadow Brook estate, located in Oakland County north of Detroit. With this property and additional funding from the Wilsons, an extension college for training teachers, engineers, and businesspeople was established. Wishing to preserve its autonomy, the university named the new school not Michigan State University—Oakland, but simply Oakland University.

Enrollment exploded during Hannah's 28-year administration, from 6,300 in 1941 to 40,820 in 1969. The curriculum and the size of the campus grew as well. The College of Communication Arts and Sciences, the first of its kind in the nation, was established in 1955. The Honors College (1956) and the College of Human Medicine (1964) were added. Fifty-six new buildings, including the Kresge Art Center, a cyclotron, and a food science building were constructed. The college was

renamed twice during Hannah's tenure: Michigan State University of Agriculture and Applied Science in the institution's centennial year of 1955, then simply Michigan State University in 1964.

As enrollment grew, MSU was competing with other organizations for state funding. When raising student fees was proposed, Hannah responded that the university should not reject talented people because they lacked funds. He said that such action would "create an upper class of the sort for which there is no place in a democracy." He also opposed student loans on the grounds that students would be saddled with onerous debt as they tried to begin their careers and start their families.

Late in his presidency Hannah was caught in a difficult situation associated with the then-escalating Vietnam conflict. In its April 1966 issue, *Ramparts* magazine reported that the university had hired at least five CIA (Central Intelligence Agency) agents as "police administration specialists" and had given them faculty rank. Hannah responded that the university's staff had "well-founded suspicions" that CIA agents were on its staff. However, he denied that the university had deliberately acted as a "spy operator" for the CIA.

Michigan State University continues to engage in important scientific and technical research. Since 1964, it has been a member of the Association of American Universities, an elite group of 58 of the nation's leading graduate research universities. Research in the early days of MSU helped lead to the development of hybrid corn, the homogenization process of milk, and a cure for brucellosis (better known as undulant fever, a debilitating disease for humans, acquired by direct contact with infected animals or animal products). More current research has focused on anticancer drugs, crops that produce biodegradable plastic, and turf for indoor athletic arenas.

The largest university in the state and the sixth largest university in the nation in 1993, Michigan State consistently boasts a student body numbering around 40,000. It is the only university in the country offering three medical schools (the College of Human Medicine, the College of Osteopathic Medicine, and the College of Veterinary Medicine). The main campus is an eclectic mix covering 2,100 acres that includes aspects of a botanical laboratory, city park, farmlands, and ivy-covered college buildings. An additional 3,100 acres includes experimental farms, research facilities, and natural areas.

At the close of the twentieth century, the pioneer land grant university remains dedicated to the ideals of the Morrill Act: to provide access to a practical and liberal education for the widest number of people. It was used as the prototype for the land grant colleges because of its precedent-setting agricultural curriculum. In the past century and a half, MSU has increasingly emphasized the need for a broad understanding of the philosophy and practice of the liberal arts and sciences.



**Further Reading:** Madison Kuhn's excellent *Michigan State: The First Hundred Years, 1855–1955* (East Lansing: Michigan State University Press, 1955) is an authoritative account of the founding and history of Michigan State University. Kuhn and Lyle Blair produced a condensed version, called *A Short History of Michigan State* (East Lansing: Michigan State University Press, 1955) for the school's centennial. Particularly informative for recent history are Paul Dressel's *College to University: The Hannah Years at Mich-*

*igan State, 1935–1969* (East Lansing: Michigan State University Press, 1987), which also explores the curriculum and ideals of the land grant institutions in depth, and *A Memoir*, by John A. Hannah (East Lansing: Michigan State University Press, 1980).

—Cindy Mertz

# MOUNT HOLYOKE COLLEGE

## (South Hadley, Massachusetts, U.S.A.)

<b>Location:</b>	An 800-acre campus located along the lakes in suburban South Hadley, 90 miles west of Boston.
<b>Description:</b>	A women's college with approximately 2,000 students, offering graduate and undergraduate studies in liberal arts and sciences.
<b>Information:</b>	Office of Admissions College Street South Hadley, MA 01075 U.S.A. (413) 538-2023

The opening of Mount Holyoke Seminary in 1837 marked the establishment of the first women's college in the United States. Its founder, Mary Lyon, was a teacher on a mission to create affordable and accessible education for women. Lyon was born in 1797 in Buckland, Massachusetts, one of eight children from a deeply religious family. At the age of 17 she secured a job for 75 cents a week teaching summer session classes to school children in Buckland. In 1817 she attended Sanderson Academy in nearby Ashfield, paying her tuition from her savings and money earned by selling quilts. In 1821 she decided to enter a seminary school for young women in Byfield, north of Boston. Against her family's wishes she used her inheritance to finance her studies there.

After graduating from Byfield she secured a teaching position at Sanderson Academy, where she met Zilpah Polly Grant, who founded Ipswich Seminary in 1828; in 1830 Lyon joined her friend and became assistant principal. When Grant took a leave of absence due to poor health, Lyon was left in charge of the academy. It became apparent to her that the Ipswich Seminary was not adequately endowed and would not be a permanent school for women. In 1833 she decided to leave Ipswich to establish a permanent educational institution for women. Distributing a series of pamphlets and articles, she began to raise funds and recruit students. In "School for Adult Females," she described how costs would be kept to a minimum by having students perform all the domestic duties. "Address to the Christian Public" argued that idle young women would prove more valuable in society as qualified teachers. In September 1834, a formal organization was created to concentrate on the establishment of the seminary. A group of ministers and educators began to search for a location for the school. Meanwhile, Lyon

was knocking on the doors of her neighbors in Ipswich asking for donations.

Early in 1835 Reverend Joseph B. Felt and George W. Heard were surveying the towns near the Connecticut Valley, where the idea of a women's school was strongly supported in Sunderland, South Deerfield, and South Hadley. When the committee announced that at least \$20,000 would be required to start the school, South Hadley responded overwhelmingly at a public meeting, and the money was raised immediately. Reverend Edward Hitchcock, a committee member and Amherst College professor, suggested a name for the school. Combining several Greek words meaning "all the powers of woman—physical, intellectual and moral," he suggested Pangynaskan Seminary. Lyon and the committee disliked the name, and opted for a simpler one, a name that described the location of the school. Outside of South Hadley stood a mountain called Mount Holyoke. In April 1835 the name Mount Holyoke Female Seminary was chosen.

Construction was being planned even as Lyon continued fund-raising. In 1836 she mailed hundreds of letters to women in New England pleading for money, hoping for donations of \$50 or \$60 to furnish a dormitory room; however, the response was bleak. The country was in the midst of an economic depression and times were hard. Lyon decided personal visits could prove more profitable; accordingly, she made personal pleas at schools and to individuals, and slowly money began to trickle in. Opening day was set for autumn 1837. There were over 200 requests for admission for a school that could accommodate 80. Lyon accepted 50 women; the others were put on a waiting list. Acceptance was contingent upon the student's providing money or furnishings for one dormitory room.

The building which housed the college stood five stories high. The dining room was located in the basement. The first floor housed the seminary hall in the south wing and the library, two parlors, and the principal's rooms in the north wing. The upper three floors were dormitory rooms, 16 to a floor. Suitable for two occupants, the rooms measured 18 feet by 10 feet, with a 5-foot lighted closet. Each room was furnished with a bed, chest of drawers, table, chairs, washstand, mirror, and an open Franklin stove for heat.

The school opened with eight women on November 8, 1836. Charging \$60 a year, Mount Holyoke Seminary became the first school to offer college-level education to women (with the exception of Oberlin College in Ohio which was a coeducational school). The seminary had



*Mount Holyoke College*



one principal, Mary Lyon, two instructors, and three student assistants. The curriculum included literature and philosophy (in 1845 Latin would be added as a required course). Lyon also emphasized the study of the sciences for women. A deeply religious woman, she viewed the sciences as a study of the works and creations of God. A seven-course study in science and chemistry was required of all women. These courses involved lectures, recitation, and laboratory work. The laboratory method was very important to females, according to Lyon, since "they have a less number of years for the pursuit and as their time must be more occupied with other things." A guest lecturer, Reverend Edward Hitchcock of Amherst College, visited the seminary once a year to speak on the latest advances in chemistry, physiology, and geology.

As principal, Lyon also drilled the women on domestic responsibilities. An alternating group of 14 students rose at 5:00 A.M. each day to prepare breakfast. Another group performed the clean-up, and another scrubbed floors and stairwells. Having students perform these chores eliminated the need for servants and introduced an element of equality to the student body. Students were also expected to walk one mile a day. Monday was a recreation day which meant that no classes were held. However, Lyon disliked idleness. The students were expected to do their laundry and sewing on Monday. In addition to studies and housework, each student practiced religious exercises. Two half hours of silent prayer (one in the morning and another in the afternoon) were required during the day. On weekends study and recitation of the Bible was required. On Sunday the women were expected to attend two church services. Non-believers and "lost souls" were converted by Lyon at religious revivals at the school.

The poet Emily Dickinson arrived at Mount Holyoke Seminary to study as a 17-year-old. She described the average school day as beginning at six, breakfast at seven, study at eight, followed by devotions at nine. Classes and music practice took place until 12:30 when the main meal, dinner, was served. The meal was followed by more classes, then a daily inspirational lecture from Principal Lyon at 4:30. Supper was at six, followed by silent study until 8:45. Dickinson finished one year and then returned to her home in Amherst, Massachusetts. Like two-thirds of the women, she did not return after her first year. Only 10 percent of students were graduated. The reasons for dropping out were usually lack of money, marriage, homesickness, or illness.

When enrollment had increased to 120 students by 1840, the trustees approved the addition of a new wing to the main building. However, disaster struck. A terrible typhoid epidemic hit the school. Forty women became ill and nine died. Accusations were made against the seminary that the girls were being worked too hard or that the facilities were unsanitary. Enrollment dropped when the school reopened in October.

With only 80 students enrolled, the school had to recruit another 40 women from a waiting list.

Lyon's health had been affected by the typhoid epidemic of 1840, and by 1846 she was declining rapidly. Now 50 years old, she was plagued by colds and lung problems. In late February 1849 she fell gravely ill and died in bed at the seminary on March 5, 1849. Her successor was Mary W. Chapin, an 1843 graduate of the seminary. On the day of her appointment, November 18, 1852, the board approved both a four-story addition to the main building and the erection of an observatory.

Health problems at the school continued in the 1850s. Another typhoid epidemic struck the seminary during the 1852-53 term. A serious fever in 1854 put 140 women under doctor's care and resulted in one fatality. Teachers and administrators were especially conscious of the health problem, since women's education in general was coming under attack from such sources as the *New York Ledger*, which published an attack on education in an article titled "Murdering Girls at School." Mount Holyoke was taking great care of its facilities when, in 1857, three students died of scarlet fever, followed by two more cases of typhoid. Mount Holyoke decided to appoint a school physician, Dr. Mary A.B. Homer. Realizing that physical exercise was a method of combating illness, the board began to raise funds for the construction of a gymnasium. Construction began in 1863.

In 1861 the seminary fulfilled one of Lyon's wishes by moving from a three-year program to a four-year course of study. Following the Civil War, the school was in debt for \$25,000. Building facilities, long out of date, were desperately in need of renovation. The trustees immediately began to campaign for funds and approached the state legislature. They were granted \$400,000 because the seminary had demonstrated a high standard of scholarship and character. The outstanding debt was paid and improvements were made: steam heat replaced the open stoves; an elevator was installed; the old oil lamps were removed to make way for gas lighting and chandeliers.

With so much emphasis on the study of science, in 1870 the trustees addressed the lack of a science building. A local businessman, A. Lyman Williston, donated \$10,000 for construction of one. Alumnae created the Mary Lyon Fund to supplement the donation. On June 1, 1875, the cornerstone was laid for the building, called Lyman Williston Hall, which would cost \$50,000. Three floors were dedicated to lecture halls, classrooms, and science displays; the top floor was an art gallery. Williston patented an invention for this building that would be used on campuses everywhere. Called the "Mount Holyoke Adjustable Arm Rest," it was a convenient movable desktop allowing students to take notes.

Celebrating the 50th anniversary of the school, whose campus had expanded from 15 to 50 acres, alumnae pressed for the seminary to become recognized as a college. The curriculum was revised and new by-laws were

established. On March 8, 1888, the school officially became a college under the name Mount Holyoke Seminary and College. Mary Brigham, an alumna, was chosen the first president of the college. Tragically, she was killed in a train accident outside New Haven that June. Elizabeth Storrs Mead of Oberlin College and Abbot Academy in Andover, Massachusetts, was appointed in her place.

Changes marked the last years of the nineteenth century at Mount Holyoke. The 1893 commencement ceremony saw the graduates wearing caps and gowns for the first time and the word "seminary" was dropped from the name of the school, making it Mount Holyoke College. In 1895 Mary Lyon's tradition of students performing the domestic duties of the school ended. Money was allotted to employ domestic workers.

A fire broke out in the gymnasium in September 1896 and by morning the main building lay in ruins. A serious year of rebuilding began. Countless gifts were received, due to the fire and in honor of the centenary of Lyon's birth to be celebrated on February 28, 1897. This money supplemented an endowment fund of \$80,000. John D. Rockefeller donated \$40,000 toward the building of a dormitory. Within a year four new dormitories were ready (Brigham, Safford, Porter, and Pearsons), and Rockefeller Hall was nearing completion. At the original site of the main building the new Mary Lyon Hall was also nearly finished.

As the new century approached, Mount Holyoke was involved with two presidents, one of the United States and one of the college. In 1900, the college was visited by President William McKinley, whose daughter Grace was a graduating senior. The president was presented with an honorary degree, and he participated in the commencement exercises by handing out the diplomas to graduates. With the new century came a new president for the college. Mary Emma Woolley, the daughter of a Congregationalist minister, was one of the first women to receive a degree from Brown University. A former professor at Wellesley College, Woolley was inaugurated as president of Mount Holyoke in May 1901. One of her first acts as college president was to appoint her companion from Wellesley, Jeannette Marks, as professor of English at Mount Holyoke. The favoritism that Woolley showed the demanding Marks (in housing and in course assignments) did not go unnoticed by colleagues.

By the end of her first decade at Mount Holyoke, Woolley doubled enrollment. The school's endowment grew to \$300,000 and six new buildings were added to the campus. A member of the Massachusetts Women's Suffrage League, the president established the Equal Suffrage League at the college (which included 200 students and almost two-thirds of the faculty). In 1930 Woolley was rated one of 12 "Greatest Women Living in America" by *Good Housekeeping Magazine*. In her company were Jane Addams, Helen Keller, and Willa Cather.

The 1930s brought the Great Depression and difficult years for the country and for Mount Holyoke. Enrollment was dropping, and the college was operating in the red. To prevent layoffs, the faculty, with the exception of Marks, took a voluntary 10 percent pay cut. Woolley announced she would retire in 1937, the centennial year for the school. Rumor suggested the board of trustees wanted her to leave office earlier. Now in her seventies, Woolley's attention to the college was waning, and rumors circulated that both her physical and mental health were deteriorating. As early as 1932 "the Committee on the Succession to the Presidency" was established. In 1936 the committee announced that Roswell Gray Ham of Yale University was to be Woolley's successor. Married with two sons, and an ex-marine, Ham was the first male president of Mount Holyoke. Both Woolley and Marks were outraged at this action. They argued that the college had worked for a 100 years to prepare women for leadership roles and that this appointment defeated that purpose. Together they launched a campaign to overturn the appointment of Roswell Ham. Their appeals were met with indifference. The country was suffering through the Depression, and alumnae cared more about the college's financial problems than about women's issues. Mary Woolley never returned to Mount Holyoke after her retirement. The new president began rebuilding and restructuring the school. More male faculty were hired. Modern, functional buildings were added, the designs of which steered away from the academic Gothic look. Enrollment began to increase and, in 1948–49, a series of dormitories set along the lakes that would accommodate the growing student population was built. Originally called Lakeside, the dorm complex would later be named Louise Terry Hall.

Mary Lyon's emphasis on the study of science continues. One-fourth of the students major in a science. Today the college ranks number one for graduating the most women who go on for a Ph.D. in scientific fields. The biographical book *American Men and Women of Science* lists 99 women who are Mount Holyoke graduates. The oldest academic building on the campus is the John Payson Williston Observatory. Built over a century ago, it houses the latest in scientific equipment and includes a 24-inch reflecting telescope and an eight-inch Alvan Clark telescope. For the study of physics, Mount Holyoke offers the only particle accelerator at a college in the United States.

Gone are the evangelical revivals and in their place are the interdenominational services of Eliot House. The chaplains of Eliot House serve all religions and the Kosher/Halal kitchen prepares meals according to the dietary traditions of the Jewish and Muslim faiths. Students of all denominations and beliefs can experience Wa-Shin-An in the Japanese meditation garden and teahouse.

Mount Holyoke has attracted faculty members who have distinguished themselves in literature and politics.



In 1967 John Irving joined the faculty as assistant professor of English. During his next 11 years at Mount Holyoke he would write four novels, the fourth becoming a bestseller. In 1985 Shirley Chisholm, first black woman to serve in the House of Representatives, spent a year at Mount Holyoke as guest lecturer.

Mount Holyoke remains the only school among the Seven Sisters Colleges that does not admit men. Honoring Mary Lyon's traditions and goals, the college continues to educate women to become leaders in society. Graduates of Mount Holyoke include Elaine Chao, director of the United Way; Nancy Gustafson, Metropolitan Opera soprano; economist Shelby White; and Olympic Gold Medalist Holly Metcalf. In 1989 the oldest living black graduate spoke at commencement. Frances Williams entered Mount Holyoke in 1915. Author Wendy Wasserstein was graduated from Mount Holyoke. Her play *Uncommon Women and Others* tells of six Mount Holyoke women during their college years, when they were full of ambitions and feminist aspirations; six years later they reunite to examine actual achievements in the real world.

Mount Holyoke's founder, Mary Lyon, was honored in 1987 when she appeared on the two-cent stamp. Feminist Lucy Stone (class of 1839) and writer Emily Dickinson have also appeared on postage stamps. Other alumnae featured on postage stamps include Frances Perkins (class of 1902), who served as Secretary of Labor under President Roosevelt, and Virginia Apgar (class of 1929), the first female professor at Columbia University Medical School.

**Further Reading:** A good biography of Mary Lyon is Elizabeth Alden Green's *Mary Lyon and Mount Holyoke: Opening the Gates* (Hanover, New Hampshire: University Press of New England, 1979). Arthur C. Cole's *A Hundred Years of Mount Holyoke College* (New Haven, Connecticut: Yale University Press, 1940) provides a thorough history of the college from 1837 to 1937. Anna Mary Wells covers the life and career of Emma Woolley in *Miss Marks and Miss Woolley* (Boston: Houghton Mifflin, 1978).

—Patrice Kane



# M.V. LOMONOSOV MOSCOW STATE UNIVERSITY

## (Moscow, Russia)

<b>Location:</b>	Within the city of Moscow.
<b>Description:</b>	A comprehensive university, better known as Moscow University, or "M.G.U.," enrolling more than 30,000 students in undergraduate and graduate programs.
<b>Information:</b>	Head of the International Education Department Moscow State University Moscow, 119899 Russia (95) 939 4220 (95) 939 3510

Moscow State University was founded by an imperial decree in 1755 from Empress Elizaveta Petrovna, daughter of Peter the Great. The decree is said to be in response to the "Report to the Senate" of Count Ivan Shuvalov. The proximity of the young count to the empress may have been another factor. Count Shuvalov, Gentleman of the Bedchamber and lover to the middle-aged Elizaveta, occupied quarters adjoining hers. Shuvalov brought much in the way of cultural advancement to the city. Elizaveta agreed when Shuvalov told her that he and Mikhail Lomonosov, now remembered as the father of Russian science, wanted to form a university in Moscow.

Lomonosov, a member of the Academy of Sciences in St. Petersburg, was the son of a peasant fisherman who had first come into that city a poor youth, later to become an important figure in geology, meteorology (the study of iceberg formation), literature, philology, rhetoric, and history.

The university, open within a year, was located in a building on Red Square, with faculties in philosophy, law, and medicine, and a preparatory school for prospective students. The only university in Europe without a faculty of theology, it was, at Lomonosov's insistence, open to all races, all religious groups, and all social classes other than serfs.

The first university students came from the seminaries, which presented the only source of university-ready students in Russia at the time. Lectures were in Latin. Students wore green uniforms with red collars, lived in a dormitory, and were closely regulated and supervised by faculty. A majority of the faculty were products of the German Enlightenment. Lomonosov was known for quarreling with such men, but they influenced one of the first important graduates of the university, Denis Fonvizin,

civil servant, translator, political satirist, and leading playwright of the 1770s and 1780s.

From the beginning, teaching at the new university fostered consideration of the era's concept of natural law, which asserted that there is a kind of law innate in human nature. Because this newly imported theory implied that power came from the people and not from God, this idea would bear upon relations between the autocracy and the universities it governed well into the next century, setting a precedent of contention between academy and state that would end only after the death of Lenin.

At the advent of the nineteenth century, Moscow University was still the only university in Russia, with no more than 100 students. Fifty years after the founding of Moscow University, few landowners were willing to send their sons to Moscow to be educated. Those members of the gentry who were educated were usually given tutors or sent to foreign schools.

During the reign of Catherine II, a Commission for the Establishment of Public Schools was set into motion, but did not really begin work until after her death. Her son, the emperor Paul, authorized in 1800 the reopening of the university at Dorpat (a German university conquered by Peter the Great), a year before he was strangled; the university at Dorpat reopened in 1802. There was also a Polish academy at Vilnius, which was made a university shortly after a national school system plan was announced in 1803, under the next emperor, Alexander I. Universities at Kazan, Kharkov, and St. Petersburg were added, and each of the six universities was given responsibility for an educational region.

The University Statute of 1804 granted autonomy (similar to that of other European universities) to Russian universities, allowing professors to take charge of their universities and educational regions and allowing for the creation of learned societies such as the Moscow University Society of Russian History and Antiquities, the Moscow University Society of Mathematics, the Imperial Mineralogical Society, and others. A new faculty of philology was added to Moscow University that same year.

In 1786, Moscow University had moved to a classical-style building at the corner of Bolshaya Nikiskaya Street and Mokhovaya Street (later renamed Herzen Street and Marx Prospekt by the Communists). The building was damaged in 1812 during Moscow's temporary fall to Napoléon and the great fire that came with it. Rebuilding began in 1817 with a new, Russian Empire-style facade. Another building was added on another corner of the same intersection in 1833. It would later become the House of Culture.



*Moscow State University*

With the victory of Russia over Napoléon and France, the Russian autocracy was at its zenith. Emperor Alexander I, who expanded the educational system and public access to it, took a new view of the intellectual life of his nation. When, in August 1816, the aging minister of Popular Enlightenment, Count Alexis Razumovsky, asked to be relieved, Alexander I replaced him with Prince Alexander Golitsyn, the over-procurator of the Holy Synod of the Russian Orthodox Church and leader of the Russian Bible Society. In October 1817, Golitsyn's post became "the Ministry of Spiritual Affairs and Education," which operated under the principle that a proper education must be based upon "Christian piety." The bearing of this religious notion on the intellectual character of the Russian university system took little time to show itself. In 1820, a publication at St. Petersburg University led to the firing of the author and four other professors, the replacement of many other non-compliant university professionals, and a temporary end of autonomy for all Russian universities.

Nicholas I came to power in December 1825 to face immediately the first of the eventually successful series

of Russian rebellions, the Decembrist Uprising, which was quickly swept aside, but not without the notice of both emperor and populace. He wasted no time in ensuring that the universities were in check. Changes in the conduct of academic affairs were made subtly, beginning with improvements. Incompetent professors were sent into retirement, and the salaries of others were raised, some of them tripled. New institutions were opened. However, the new emperor's advancements were intended to establish a pedagogy that advanced the principles of "orthodoxy, autocracy, and nationality."

History was now dedicated to proving that the Russian Orthodox Church and the Romanov czars were the font of Russia's greatness. Michael Pogokin, professor at the University of Moscow, later seen as the first real professor of Russian history, would offer up the vision of Russia as "a gigantic machine . . . directed by the hand of a single man, the Russian Tsar, the earthly god."

These policies served more to drive young Moscow intellectuals out of the lecture hall and into circles, informal discussion groups at various places throughout the



town, than it did to turn the tides of change. The young intellectuals who attended those circles were still moved by the same beliefs that had moved the Decembrists a few years earlier. They included Micheal Bakunin, the father of revolutionary anarchism; Ivan Turgenev, author of *Fathers and Sons*, a tale of young revolutionaries; Mikhail Lermontov, author of *A Hero of Our Time*, the seminal collection of stories of a disaffected Russian officer; and Ivan Goncharov, author of *Oblomov*, in which the character of a Russian noble is the quintessential "superfluous man." While most of the people who attended the circles were at one time or another enrolled at Moscow University, the official line imposed upon the professors there was not acceptable to these young intellectuals, who would be leaders of Russian intellectual and literary life for a generation.

Once again, German philosophers attracted the attention of young, activist Russians. This time it was such thinkers as Fichte, the liberal nationalist who postulated a universal will as the source of all things, and Hegel, most noted for his dialectic of thesis and antithesis and his influence on Marxism and existentialism, who tempted the minds of the young away from the autocratic, orthodox, nationalist line. Alexander Herzen, the founding father of populism and another of the disaffected students, would write in exile on socialism and revolutionary ideas in Russia. His books were first issued in French. When the Russian translation appeared in the early 1860s, it was dedicated to the students at Moscow University.

Professors who did not promote "orthodoxy, autocracy, and nationality" were not entirely absent from the scene. Timothy Granovsky, who began teaching in 1839, became one of the few popular professors at Moscow University, not by attacking the current Russian system, but by pointing out non-Russian issues such as the shortcomings of the medieval French and English legal systems in such a way that his students could readily understand that the Russian system was vulnerable to the same arguments. Granovsky became a regular celebrity, attracting crowds of admirers to his public lectures. At one point, he reported in a letter that he had been accosted by Metropolitan of Moscow Philaret, prelate of the Russian Orthodox Church, who told him, "I am informed that you are a harmful professor—that you darken the minds of the loyal sons of our sovereign."

In the second half of the nineteenth century, Moscow University advanced Russia's reputation in science. The physicist A.G. Stoletov, known for his work with ferromagnetism, founded the Russian Institute of Physics at Moscow University. Physiologist I.A. Babukhin, who discovered electrical organs in fish, brought Moscow University to the forefront of microscopic neuromuscular studies.

The first years of the reign of Alexander II, from 1855 to 1865, saw the emancipation of Russia's serfs in 1861, as

well as a relaxation of the government's controls over Russian universities. The new emperor recognized the danger of student uprisings. Universities were opened to anyone who could pass the entrance examinations, scholarly materials were allowed to flow more freely into the country, and the curators and inspectors who had held academic life in check under Nicholas were replaced and no longer had duties outside of the university itself. Uniforms were done away with, and the professors and councils of universities were again granted autonomy. Long hair and beards, even then symbols of rebellion, appeared. University officials were no longer quite so sure of their dominion.

Alexander II would grow more conservative with time, but, though financial support for Jewish students was cut off in 1875, the reforms of his first decade as emperor would largely stay in place until his assassination in 1881. It would be Alexander III, his father only recently murdered by terrorists, who would put a stop to the academic freedom that Alexander II had brought.

The University Statute of 1884 stripped the Russian rectors and deans of their autonomy. The grip of educational district officials on students, university councils, and internal administrators was strengthened. The ministry of education was given the right to influence courses. Tuition was increased and the students were put back into uniform—the better to be identified by police and educational authorities—and denied the right to belong to certain kinds of student organizations.

University autonomy would advance and decline again under Nicholas II. The beginning of the overall disastrous Russo-Japanese war brought student strikes to Moscow, complete with talk of armed demonstrations, in early 1905. Russia experienced a failed revolution in 1905, but it was the workers of Moscow whom czarist forces shelled into submission in December of that year. The utter failure of the Russian war effort against the Japanese served to alert the Russian government to a need to improve education nationwide. At the university level, this meant lifting some of the restrictions imposed on faculties and administrations in 1884. Academic councils were again allowed to control the appointment of professors, rectors, and deans. Students also were allowed greater freedom.

Unfortunately, the Ministry of Education did not modify its approach. The ministers of education between 1908 and 1914, A.N. Schwartz and L.A. Kasso, were particularly heavy-handed. Restrictions on Jews were brought back, and meetings of university students were forbidden. Rectors and professors were fired at the pleasure of the ministry. These measures were not accepted by Russian scholars; nationwide student unrest was the result, though some professors seem to have had a hand in the demonstrations. Moscow University's uprising of 1911 was the most furious.

A few Russian intellectuals greeted Lenin's regime with open arms; the vast majority rejected it. Moscow



University again proved to be the least cooperative. Immediately after the revolutions of 1917, universities in Russia were granted autonomy, but in the summer of 1918, the Commissariat of Enlightenment, a giant organization formed to preside over all educational, scholarly, scientific, and artistic activity in Russia, took control of all institutions of higher learning except for the Academy of Sciences. In October of that year, universities stopped granting graduate degrees, and professors who had ten years' tenure at the same institution or who had been appointed for 15 years or longer were dismissed. At Moscow University, 90 professors lost their positions, but when elections were held to fill the vacant posts in the first part of 1919, the only one of the 90 not reinstated was the only Communist among them.

Although the Eighth Party Congress of 1919 declared the intent of the Communist Party to change the educational system from "a weapon of class domination" to "a weapon for the Communist rebirth of society," the universities maintained some autonomy for a number of years. A 1921 statute reestablished many of the restrictions of the czarist university statute of 1884 and gave power over faculty selections officially to the Commissariat of Enlightenment and effectively to the Communist Party. Official surveillance of the social science faculties was started between 1921 and 1922. In spring 1922, hundreds of professors from Moscow University went on strike to protest the new regulations. Seven were deported, and, as surveillance continued, more were dismissed and deported.

The new government strove to bring young people from working families to the universities, and to rid higher education of the humanities and pre-Communist social science faculties. The Institute of Red Professors, established in 1921, worked to produce Communist professors. The steps taken worked gradually, however, and it was the late 1920s before the Bolshevik measures really took effect.

In order to bring more working-class students to the university, the Bolsheviks declared open admissions for anyone over 16 years of age, a practice that did not work. The failure was partially due to professors' refusal to allow unqualified students into seminars and partially due to the general orientation of workers and peasants, who not only took little interest in academic matters, but had no means of feeding, clothing, and housing themselves if they left their jobs for the university. A more successful approach was the creation of Workers' Faculties to provide a step between the factory or the field and the university, but this effort still had mixed results. The percentage of peasants among university students went from 14.5 in 1914 to 22.5 percent in the 1923–24 academic year, but the number of workers and craftspeople dipped from 24.3 percent to 15.3 percent. During the Stalin years, more harsh measures were taken to try to turn the universities from preserves for the intelligentsia to

institutions for the masses, but Khrushchev, in 1958, would confess that a solid majority of students were from non-peasant, non-worker families.

By 1957, though then as now most commonly called simply "Moscow University," or "MGU," Russia's leading institution of higher education had officially become the M.V. Lomonosov State University, its main campus occupying a spot overlooking the Lenin Hills, which commands the most scenic view of Moscow. The main building, a towering 787 feet of "Russo-modern" architecture, was built between 1948 and 1953 at a cost of 3 billion rubles, which in the 1950s was more than three-quarters of a billion U.S. dollars. At that time, there were 1,900 laboratories and 15,000 rooms. The teaching staff numbered some 1,800 and the students 17,000, at least 13,000 of whom were in the sciences. The 4,000 liberal arts students were educated in an older building near the Kremlin. The curriculum was identical with that of universities all over the Soviet Union. Soviet citizens attended free of charge and received a government salary, although tuition was charged from 1941 to 1956. By the 1960s, though the population of the working class on matriculation was noticeably slipping, the Soviet Union rated second only to the United States in terms of the percentage of the total population studying at universities.

The end of the Soviet Union has brought gradual change to Russian universities, especially because the old guard of the faculties has been free to remain. The same instructors who taught Marxism and Leninism now teach the social sciences and anthropology. However, the abolition of the centralized schedules and curricula has left Russian universities in a confused state. Furthermore, the professors who were entrenched as part of the old guard still hold sway, partly because of their numbers and partly because it is they who have experience managing universities. When Moscow State University elected a rector in 1992, the old vice-rector won.

M.V. Lomonosov Moscow State University boasts a faculty of well over 8,000; 26,000 undergraduate students; and 5,000 doctoral students in 20 academic departments. It has more than 100 laboratories, a computer center, botanical gardens, and museums of anthropology, soil science, and rare books. One U.S. study ranks Moscow University as the second-best university in Europe.

**Further Reading:** It is difficult to find any literature that encompasses the history of Moscow University. What material there is tends to be very slanted either toward or against the Soviet regime. Especially useful for the czarist era are *Young Russia: The Genesis of Russian Radicalism in the 1860s* by Abbott Gleason (New York: Viking, 1980); *Years of the Golden Cockerel: The Last Romanov Tsars 1814–1917* by Sidney Harcave (New York: Macmillan, 1968; London: Hole, 1970); and *Russia Since 1801: The Making of a New Society* by Edward C. Thaden (New York: Wiley, 1971).

Thaden's work is also useful for its information on the communist era. *Inside Russia Today* by John Gunther (New York: Harper, 1958; revised edition, 1962) provides a close look at Moscow University during the Khrushchev regime. *Education and Society in the New Russia* edited by Anthony Jones (Armonk, New York: M.E. Sharpe, 1994) is an excellent col-

lection of essays on conditions and movements in the immediately post-Soviet Russian educational system.

—Robert Schoenberg

# NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO

## (Mexico City, Mexico)

<b>Location:</b>	In the southern part of Mexico City.
<b>Description:</b>	Public institution with 263,891 students.
<b>Information:</b>	Secretaría Administrativa Ciudad Universitaria (Torre de Rectoría 5 piso) México, D.F. 04510 (5) 616-0205 Fax (5) 616-1538

The Universidad Nacional Autónoma de México (UNAM, National Autonomous University of Mexico) is the most important higher education institution in Mexico and, arguably, in all Latin America.

The Royal University of Mexico was the first university to function in the Americas, though universities in Santo Domingo and Lima were chartered a bit earlier by the Spanish crown. Fray Juan de Zumarraga, the municipality of Mexico City, and the Viceroy Antonio de Mendoza were main forces behind the new institution's founding in 1553. The first students were four brothers of the de Castilla family, descendants of King Don Pedro. For matters ranging from academic structure to individual rights, the model was the University of Salamanca in Spain. The first subjects were theology, arts and grammar, and law. Because evangelizing the native population was a major concern, indigenous languages were taught; but of course the main language was Latin, the main texts European.

As the university grew, students held an honored place apart from the general population, the emblems of their particular school or faculty as badges of honor. Most of the professors were affiliated with religious orders, gaining their posts through rigorous examinations. The university gained pontifical status in 1595. But religion also brought early challenges to the institution, including struggles between church and crown, with the latter usually having the upper hand. Another challenge came from the Jesuits, who arrived in 1572 and founded their own colleges. Their success intensified protests from the university, fearful of competition. The university got royal protection through a decree that only it could grant academic degrees. Juan de Palafox y Mendoza, Bishop of Puebla, felt compelled to carry on the fight in the seventeenth century and help get further statutes for the university's privileged status. Jesuits remained the exception to the decline of higher education into conformist thinking

in that century. Expulsion of the Jesuits in the next century was a blow to Mexican education; the university played no major role in the country's cultural flowering.

As the colonial era closed, a trend toward secularization led to the creation of new professional schools and to curriculum reforms. But the struggle for independence hurt the university, which found itself occupied by Spanish troops for six years. With independence, the institution briefly became the Imperial and Pontifical University of Mexico but mostly it became a pawn in the titanic liberal-conservative struggle that contributed to the country's political instability and economic weakness. It was chronically closed and was definitively shut down in 1865.

Only separate professional faculties continued to operate until 1910 when followers of the positivist movement, who had such an impact from Europe to the New World, established the university anew—only to see it crumble in the cataclysmic revolution launched just months later that engulfed Mexico in violence for two decades and more. Into the 1930s demands of revolutionary solidarity or commitment to practical education for the masses were not compatible with university ideals of autonomy and advanced learning. When the university was granted first partial and then full autonomy, the price was elimination of government subsidies. Further, creation of a National Polytechnic Institute, which remains the other giant institution in Mexico City, broke the university's near monopoly on higher education.

By the mid-1940s, however, the regime settled into a postrevolutionary pursuit of political stability and economic growth and thus entered, with the university, into a *modus vivendi* that has, for the most part, held over the next 50 years; in fact, the first half of that period marks a golden age probably unmatched since the university's early years.

The *modus vivendi* was shored up by careful internal governance. Though UNAM's council has power to make academic rules, it includes the rector as president, and representatives of deans as well as faculty, students, and workers. In any case, the highest authority is a U.S.-style governing board; composed of 15 distinguished Mexicans, it appoints the rector and directors and deans. Moreover, since the early 1970s, rectors have come not from the (generally leftist) social sciences but mostly from the hard sciences; the re-election of some is testimony to a stability quite at odds with the situation in most of the institution's history since independence from Spain.

A first measure of the contemporary university's importance lies in its unrivaled size. Sprawling over 1,803 acres on the main campus alone (University City,





*National Autonomous University of Mexico*

built in the early 1950s and famed for its murals), UNAM commands an annual budget that reached (before the 1994 peso devaluation) 1 billion U.S. dollars—greater than a federal aid to 27 of 31 states and greater than the budget for some federal ministries. If all its students are counted, then UNAM is among the largest universities in the world. But over 40 percent of the students are in UNAM's network of high schools, some even at junior high school.

The UNAM slipped from near-monopoly to having roughly 10 percent of Mexico's higher education enrollment; some of the decline is a natural result of enrollment growth and national modernization. With the creation of public universities in every state, and the proliferating technical and agricultural institutions, UNAM could not have met the nationwide demand that would have made the university too large to manage. It also created National Professional Schools of its own on the outskirts of the city. Still, the creation of another public multi-university in Mexico City (The Autonomous Metropolitan University, 1974) was also a pointed effort to achieve academic reforms impossible at the UNAM and often failed at its own professional schools. And elite private universities have increasingly attracted students from the best high schools and provided them with a strong leg up on

the best jobs that require modern economic and technological skills. Private enrollments now approach 20 percent of the Mexican total.

Offsetting UNAM's slip in proportional size is the fact that it is still much greater in size than any other institution and has unrivaled breadth. A "mega-university," UNAM has 13 doctoral granting schools, varied other faculties and units, and a research network of 25 institutes, 14 centers, and 7 programs.

These research sites speak to UNAM's unmatched weight in the most advanced academic work. Begun in 1929, the sites often afford good facilities and protection from tensions afflicting the teaching faculties. They make a disproportionate contribution to UNAM's hold on one-third of all the places in the nation's competitive National System of Researchers. Similarly, and dating from about the same starting point, UNAM has one-fourth to one-third of the nation's graduate enrollments, and some of its science, medical, and engineering specialties have international reputations. At the undergraduate level, UNAM retains a superiority in many of the same fields, where elite private universities hardly challenge, and for the pre-university levels some facilities rank high.

Unfortunately, however, academic quality is compromised in several ways. Research, itself too variable across

and within units, is strongest in the units separated from the teaching faculties and thus does not contribute enough to teaching. Part-time professors outnumber full-time at least three to one even though the latter is often more a formal title than a functional reality, and whereas most part-timers had been esteemed professionals now many are merely college graduates with no distinguished academic or practical knowledge to offer. (UNAM has roughly 23,000 professors, depending on definition of categories.) Moreover, much graduate education is but an ad hoc extension of undergraduate programs, and doctoral enrollments reach only 1,547 (roughly 70 percent of the nation's total.) At the undergraduate level, lax entry requirements are followed by lax rules on attendance, exams, and other matters, policies defended largely by a perceived threat of student disruption.

The UNAM continues to exert a huge influence beyond its own institutional borders. It has been the academic model for most public universities in the Mexican states and was influential for many private universities, in part because of its prestige and because almost all the private universities must be recognized by either the government or UNAM; in fact, the bulk of private high schools in Mexico City are accredited by UNAM, another source of UNAM's influence. Over the years, UNAM has also educated many of the academic leaders for other Latin American countries.

The university's Centro Cultural Universitario is a leader in its class. The UNAM houses dance and theater companies and a major orchestra. It owns and manages historical buildings and museums, the country's second largest concert hall, and largest library system (164 libraries with over 4 million volumes), and the leading film collection in Latin America. Its sports facilities are Mexico's largest and it boasts leading professional teams.

A major consequence of frustrated academic reform is academic laxity, at least in the social sciences and busi-

ness-related fields where the contrast is sharp to elite private universities that have gained much of the prestige and an increasing percentage of good professors. Rigor remains greater in the exact sciences and medicine; elite private universities that compete in medicine do well but their numbers are rather limited. Entry to UNAM's secondary education still provides an automatic pass into its higher education, curriculum often remains weak and dated, students who do poorly (through lack of effort or ability) routinely just retake courses, and, despite all this, drop-out rates are high.

The prospects for reform, though, have improved in higher education in the 1990s. Resources and rewards are increasingly tied to performance, evaluation and competition are gaining ground, more consideration is given to links with a modernizing economy, and the North American Free Trade Agreement (NAFTA) gives new impetus to these processes as it also stimulates a notable increase in UNAM's contacts with U.S. and Canadian institutions. Opposition to the reforms appears now a defensive, delaying operation. But in Mexico's increasingly diverse and competitive higher education system, UNAM's stature and role will depend on how rapidly and well this institution effects its own reforms.

**Further Reading:** A useful introduction in Spanish and English is the UNAM's own *National Autonomous University of Mexico* (Mexico City: UNAM, 1981). A political analysis highlights Daniel C. Levy, *University and Government in Mexico: Autonomy in an Authoritarian System* (New York: Praeger, 1980). For more statistical information, see UNAM, *Agenda Estadística 1994* (Mexico City: UNAM, Dirección General de Estadístico, 1995).

—Daniel C. Levy and José María García Garduno

# NATIONAL UNIVERSITY OF IRELAND

## (Republic of Ireland)

<b>Location:</b>	Three campuses in urban areas (Dublin, Cork, and Galway) and one in a semi-rural area (Maynooth).
<b>Description:</b>	A four-campus, government-sponsored university system with total enrollment of approximately 31,000 students in undergraduate and professional programs (including programs at St. Patrick's College, Maynooth, for training clergy).
<b>Information:</b>	<p>University College, Dublin Belfield, Dublin 4 Dublin Ireland (1) 706 7777</p> <p>Information Office University College, Cork U.C.C. Cork Cork Ireland (21) 902371</p> <p>University College, Galway Admissions Office U.C.G., Galway Galway Ireland (91) 24411</p> <p>St. Patrick's College, Maynooth Registrar's Office Maynooth Co. Kildare (45) 658 5222</p>
<b>Visiting:</b>	Guided tours of the campuses are available at all four colleges. For more information, call the phone numbers above.

As the new chancellor of the National University of Ireland (NUI) in November 1921, Eamon de Valera delivered a speech to students in which he said of the 12-year-old university: "A nation's university should not be a machine for casting standard types and stamping them off. Nor should it be merely a venerable seat of learning." To be worthy, he went on in his speech, NUI "should throb with the living fires of a nation's soul." When de Valera spoke of this dream, the fate of Ireland as a coun-

try had yet to be decided, and debate about political and cultural issues raged. As Ireland formed as a nation, so formed the National University of Ireland, which would train and educate the members of the new republic.

In 1921, the struggle for national independence was at a critical stage, and de Valera, whom Donal McCartney calls the "generally acknowledged leader of nationalist Ireland" accepted the candidacy for the chancellorship of the university. De Valera was then the president of the Irish Free State; in addition, he was also the president of Sinn Fein, the Irish nationalist movement which achieved independence for the Irish Free State in 1922.

The National University of Ireland was formed amidst heated debate over Irish education. In the years preceding the signing of the Irish Universities Act in 1908, which established the NUI, several options for higher education existed in Ireland, but many believed there was no place for the Catholic majority to gain the tools needed to advance in Irish society.

Indeed, at least 75 years before NUI, efforts had been strenuously made to achieve just such a goal. According to T. Corcoran, an early professor at the NUI, the seeds were planted for a national university system as far back as 1845: in that year Sir Robert Peel, prime minister of England, secured the passage of a law to erect and endow from public funds two colleges in Ireland. They were Queen's College of Cork and Queen's College of Galway. Together with Northern College at Belfast, the three colleges became Queen's University of Ireland in 1850. In terms of administrative duties, though, these colleges were not represented by local or regional bodies. Therefore, early nationalist figures vocally opposed the Queen's College system. Soon after, Ireland saw the formation of its own Catholic University; it was supported exclusively by donations from Irish parishes. But even with the Catholic University in place by the 1850s, the educational needs of the vast majority of the Irish population remained unserved.

An attempt at modification was made in the Royal University Act of 1879: this act expanded the university senate of Queen's College, and increased the "teaching power" in both the Queen's Colleges at Cork and Galway and the two Catholic University Colleges in Dublin. Then with the implementation of the Irish Universities Act of 1908, the Catholic University Colleges of Dublin and the two Queen's Colleges were made into three constituent colleges of a new national university—National University of Ireland. Within six months of that act, recognition status was accorded the National Ecclesiastical College of St. Patrick, Maynooth.





*National University of Ireland*

As de Valera well knew, the incorporation of the former Queen's Colleges and the Catholic University into one national university system represented an investment in Ireland's future as an independent nation. The National University of Ireland grew with the years. "De Valera's NUI, like the Chancellor himself," writes McCartney, "had indeed had a revolutionary youth, followed by academic maturity." Part of this academic maturity was reflected in the growth of the physical plants of all four colleges; part of it in increased course offerings; and part in the expanded process of self-government among the system's colleges. While the chancellor's office was appointed for life or until resignation, the office of vice-chancellor rotated between the presidents of the different colleges. This decision, made early in the history of the NUI, helped to alleviate friction between sister colleges.

However, in the twentieth century each college maintains its own strong regional flavor and represents the unique culture and history of the distinct areas of Dublin, Galway, Cork, and Maynooth. When de Valera was still a young man with a degree in mathematics, he wanted to teach, and so lobbied heavily for the position of chair in mathematical physics at the Queen's College at Cork, in the south of Ireland. "Energy, zeal, capacity," and "devotedness to learning" were among the qualities ascribed to the young de Valera in the race for the UCC teaching position. Despite all his efforts to obtain the teaching position, he failed. By 1917 he was still writing about mathematical equations not from a university post but, due to his activities on behalf of Irish freedom, from his cell at the Lewes Jail.

Later political opponents of de Valera joked that UCC,

and its president in particular, had much to answer for, in not accepting de Valera as professor of mathematical physics. They had thereby changed the course of modern Irish history. The famous Easter Rising of 1916 ended de Valera's teaching aspirations for good. However, although his patriotic commitment grew, his love for the university, scholarship, and learning never waned: it would be only a few short years before de Valera would return to the National University of Ireland.

Today the UCC, situated on the banks of the River Lee, enrolls over 10,000 students in eight different faculties. According to a UCC document, women are 54 percent of the student body. The Boole Library—so named for George Boole, first professor of mathematics at Queen's College, Cork (now UCC)—was established in September 1983 and currently holds over 600,000 books. Among other renowned buildings are the Crawford Observatory, the Medical Building, and the Honan Chapel. The Honan Chapel, built in 1915, has a unique mosaic floor with signs of the zodiac, the river of life, and various animals. In addition, the campus features a science center, built in 1971 on the site of the former county jail buildings, and the Stone Corridor, which functions as a covered walkway in the main quadrangle. The Stone Corridor contains Ogham stones, an early coded form of the Irish language, that record genealogical statements of the period 300–600 A.D.

When the Irish University Bill was passed in 1908, the success of the new university would depend on how it was received in fractious Ireland of the turn of the century. Therefore, the role of the chancellor—the chief officer of the university—took on an added importance. With the cultural and political divisions in Ireland at the turn of the century, one of the issues the early chancellor faced was the issue of compulsory Irish as a subject that was essential for matriculation within the NUI. The issue was resolved with an NUI Senate vote: “essential” Irish was affirmed. While not the rule by the late years of the twentieth century, Celtic studies still flourish at each site of the NUI.

Another campus is that of the University College, Galway (UCG). Situated on the banks of the River Corrib in the western Ireland city of Galway—rich in Gaelic culture—the UCG honors the importance of Ireland's two official languages, English and Irish (Gaelic). Of the two, English is the more common. Yet at UCG, founded in 1845 as “Queen's College Galway,” Gaelic culture can still be studied and examined in its element. There are seven faculties at UCG: arts, Celtic studies, commerce, engineering, law, medicine, and science. With a student population of 6,500 in 1993 the college strives to bring the older Gaelic culture of Ireland—in music, song, and language alive in this western city. This goal is reflected not only in the city and its environs, with its proximity to the Irish-speaking Gaeltacht, but in the programs of the UCG itself. Along with its programs in major disciplines

and professions, the UCG prides itself on its faculty of Celtic studies. In addition, the UCG's Hardiman Library, which is primarily a teaching library, holds Galway's oldest documents, as well as serving as a UNESCO-designated folklore archive.

Indeed, the diverse programs at the UCG may very well reflect de Valera's words to the students of 1921 when he requested a university that reflected the nation's history and soul. Perhaps no other campus among the constituent colleges of the National University of Ireland does so as intently and so well as University College, Dublin. With the successful passage of the Irish Universities Act, which became law on August 1, 1908, it was established as a constituent college of the National University of Ireland: its new name was University College, Dublin. Originally the Catholic University, which originated in 1851 in the face of the long-established Protestant University, the UCD represented Ireland's ancestral Catholic and Irish culture. This history is reflected in the current holdings of over 1 million books at the UCD library, which include a special collection of Celtic languages and literatures. The largest of the NUI constituent colleges, UCD had a total of 15,854 students enrolled in full or part-time study in the year 1993–94.

Currently the main campus in Belfield, Dublin, houses the faculties of arts, Celtic studies, commerce, law, agriculture, and other faculties. The Graduate School of Business is housed at Blackrock, Dublin, while the medicine, architecture, and veterinary schools are housed at Earlsfort Terrace, Richview, Clonskeagh, Lyons Estate, and Ballsbridge, respectively.

The three constituent colleges of the National University of Ireland—University College, Dublin, University College, Cork, and University College, Galway—have carried on the dream set forth by de Valera: the dream for a university system that would make available a quality education for the country's population. But in addition to the programs offered at the three constituent colleges, the NUI also has a recognized college, St. Patrick's College, Maynooth.

Located in the town of Maynooth in County Kildare, St. Patrick's, founded in 1795, was originally a training college for Catholic priests. Lay students were admitted in 1966–67, and are now by far the largest part of the college's 1994–95 total enrollment of 4,119 students.

Within the structure of St. Patrick's are three institutions: The College of the National University of Ireland, the Pontifical University, and the seminary. The College of the National University of Ireland awards degrees in arts and sciences—with bachelor of arts, bachelor of science, master of arts, master of science, and Ph.D. programs. The Celtic studies program offers courses in modern Irish, and middle and old Irish literature and language for a degree. A variation on the program is offered though a study of Welsh language and literature. A wide

range of post-graduate degrees is available. Masters in science, education, and many other programs are available, and doctoral work is available as well. As of 1994, a new program was instituted: a B.A. in music.

The Pontifical University awards degrees in theology and philosophy. All seminarians attend the Pontifical University at some stage of their studies. Lay students also attend undergraduate and post-graduate courses through a joint program of B.A. in theology in conjunction with the National University. The seminary's own courses on the formation of priests are outside the academic coursework.

The buildings are divided into two sites: the north campus was developed in the 1970s, its facilities were designed for NUI courses. The south campus is the site of the original college founded in 1795: it is the base for the seminary. Offices and classes for the Pontifical University are located here, and administrative offices as well.

It would be fair to say that at the end of the twentieth century, the words of Eamon de Valera have rung true: "Standing here on the threshold of the future," he said in his original 1921 speech to the NUI students, "we may well salute it, and resolve together to make our dreams

for our university and our nation come, every one of them, true."

**Further Reading:** T. Corcoran's *The National University of Ireland Handbook* (Dublin: National University of Ireland Press, 1932) provides a detailed account of the founding of the university through 1932. An excellent arrangement of graphs and charts demonstrates the growth of student population and teaching faculties up to 1932. *The National University of Ireland and Eamon de Valera* by Donal McCartney (Dublin and Dover, New Hampshire: University Press of Ireland, 1983) examines the history of the NUI through the chancellorship of Eamon de Valera. Another comprehensive account of the National University's history will be found in *Towards ■ National University: William Delany SJ, an Era of Initiative in Irish Education* by Thomas J. Morrissey (Dublin: Wolfhound Press, and Atlantic Highlands, New Jersey: Humanities Press, 1983). The role Mr. Delany played in the ultimate formation of the National University of Ireland is closely examined.

—Rosemarie C. Sultan



# NATIONAL UNIVERSITY OF SAN MARCOS

## (Lima, Peru)

<b>Location:</b>	In Lima, Peru's capital and chief administrative, commercial, manufacturing, and cultural center. The university is five miles west of Lima's Plaza de las Armas, the city's center.
<b>Description:</b>	Peru's oldest, largest, and most prestigious institute of higher education. The university enrolls over 35,000 students in a wide variety of undergraduate and graduate programs.
<b>Information:</b>	National University of San Marcos 295 Avenida Republica de Chile Lima Peru (14) 314 629
<b>Visiting:</b>	Contact the university at the above location.

Shortly after Spain's arrival in the New World, it began organizing institutions of higher education modeled on Europe's universities. Spain viewed these schools as effective means of extending its political, religious, and cultural influence in its colonies. The important role the Spanish Crown intended for these universities plagued them with a tumultuous history.

Since the 1540s, Spaniards in Peru had desired an institution of higher education to advance their career ambitions and social status. The citizens of Lima argued most vocally for the establishment of a university in their city of grand churches, great government buildings, elaborate hospitals, and large monasteries. Founded in 1535, Lima was the capital of the Viceroyalty of Peru, which included all of Spanish South America. The young city was Spanish America's most important political, commercial, and religious center. The Spanish Crown shared the vision of Lima's citizens, realizing that educated men were needed to fill the New World's governmental and religious bureaucracies, but the government was slow to act.

Instead, the Dominican Order in Peru took the initiative. The Dominicans saw a university as a way to train missionaries to convert natives, but also as a means to gain colonial influence by educating men not only in religious but in secular topics. In 1548 the Dominicans opened a college in Lima. Friar Tomas de San Martin, director of Peru's Dominican Order, soon formally appealed to King Charles V to sanction this school as a university; the Dominicans, as they had achieved at the University of Santo Domingo, wanted royal legitimacy

for their education efforts. King Charles, content to avoid the drain on the royal treasury, issued a decree in May 1551 chartering the school as the *Pontifica y Real Universidad de San Marcos de Lima* (Pontifical and Royal University of San Marcos of Lima). This decree modeled the school on Spain's noted University of Salamanca. However, the Dominican Order only allotted 350 pesos for the project. The school floundered, only offering instruction in grammar. Despite their inability to fund the project, the Dominicans battled with Spain's kings for years to maintain control of the school, hampering the university's development. Indeed, although the university was the second sanctioned in the New World (after the University of Santo Domingo), it did not grow to its intended status until the Crown asserted its power.

Throughout Latin America, universities were the focal point of the struggle between the Spanish Crown and the religious orders. This battle is illustrated in the government's efforts to gain control of the nascent university in Lima. In 1569 Francisco de Toledo assumed the post of viceroy of Peru, instituting an efficient, repressive government. De Toledo wanted the university at Lima to serve its grand purpose of extending the Spanish Empire's influence in the New World, but on a local level he viewed the school as a means of fostering loyalty to the Crown by creating opportunities for Peru's growing number of Creoles.

In 1571, under the direction of King Phillip II, de Toledo ordered the school secularized and limited the involvement of the Dominicans. That same year, Rome attempted to reassert its authority by issuing a papal bull sanctioning the university. However, de Toledo, acting with the force and treasury of the Spanish Crown, acted decisively in 1574, when he formally founded the University of San Marcos, then provided the university with a substantial endowment and removed the school from the Dominican convent where it had been housed. Faculty and administrators were recruited from the University of Salamanca. Between 1576 and 1578 the school became a multidisciplinary university as de Toledo authorized the expansion of its programs to include philosophy, theology, law, canon, medicine, and Quechua, the language of Peru's indigenous people. In 1582, de Toledo further expanded viceregal control over the university by weakening the authority of the university's rector (the head administrator), whom the Dominicans still had influence in selecting. Nonetheless, the church's leverage in the university, as in all Latin American universities, remained for nearly three centuries. Dominican, Augustinian, Jesuit, and Franciscan Orders all maintained chairs which

influenced the university's curriculum, and theology remained the most significant curricular offering. After Peru's viceroy and the religious orders arrived at a working compromise, the school became an organizational and curricular model for most Latin American universities founded in the 1600s.

By the early seventeenth century many scholars praised the University of San Marcos' distinguished faculty, but later critics have decried the stress the school placed on Scholastic education to the detriment of rational and applied science, math, medicine, and engineering. After the 1640s the university made some efforts to counter its Scholastic emphasis by augmenting its programs in medicine and math. The traditional curriculum was again challenged in the late eighteenth century, when the Enlightenment's ideals permeated intellectual Peru, weakening traditional ecclesiastic influence in education. Several professors at the University of San Marcos espoused these new doctrines. Peru's viceroy accordingly redeveloped the university's curriculum to emphasize natural science and medicine, established a library, reformed the professorial selection process, and tied the rector to the viceregal bureaucracy, although this last act was more consistent with politics than with the Enlightenment. While the Crown responded to the introduction of the Enlightenment's ideas into the university, these ideals would profoundly affect the Spanish Empire. The movement for independence from Spain grew in the early nineteenth century, and the University of San Marcos' rectors took a vocal part in the movement as the school agitated for political change.

After a series of revolts, Peru gained its independence in 1824. Thereafter, education received increased attention as the new nation searched for its path to progress. After 1850 Peru's government initiated expansive modernizing reforms in all areas of government. These efforts, which swept the newly independent republics of Latin America, emphasized educational reform. In Peru the government centralized control of all levels of education, established public schools, founded two additional universities, and sought to restructure higher education along a Napoleonic model. In 1855, the government reorganized the University of San Marcos in an attempt to make it a truly multidisciplinary, modern university. Five independent private colleges were added to the school, and the next year an independent medical school joined the campus, allowing the school to offer a comprehensive medical curriculum for the first time. But many faculty at the university fought the increasing government influence in their institution by claiming that the school's sanctioning prior to the establishment of the Republic of Peru conferred on it the privilege of self-determination. It took over a decade and a more potent minister of education for the government to effectively strengthen its control over the University of San Marcos and to quash this concept of "privilege." Thereafter, the struggle became irrelevant as the govern-

ment's instability weakened its control over the university. Despite some reforms, for the next half century the University of San Marcos, like universities across Latin America, remained a traditionalistic institution that primarily served the socio-economic elite. Several historians have noted the pressing need for academic reform in Latin American universities of the late 1800s. Their primary criticism was that these schools—unlike their counterparts in the United States and western Europe—served not the interests of students, but those of the state and church.

By the early twentieth century, activists inside the University of San Marcos initiated efforts to reform the institution. But their activism transcended the university and reflected the greater movement for social change in Peru. After 1900 the university became a center of political and social protest. This movement was initiated by a coterie of progressive professors and the university's increasingly activist student population. In addition to fundamental university reform, they called for increased access to education for the masses, agrarian reform, and legal protections for Indians and workers. These ideals began a long tradition of student activism which spread to most of Peru's universities and profoundly altered the political landscape of the nation.

In 1909 University of San Marcos students demonstrated for the release of political prisoners and protested Peru's dictatorship. In 1916 the radical student organization at San Marcos grew into the Peruvian Student Federation. Led by San Marcos' students, this body incorporated students from all Peru's universities, thereby creating a new political force and directing future student protests. In 1919 the student federation demanded extensive university reforms including a modernizing of the curriculum, the removal of incompetent tenured professors, the elimination of government interference in the university, scholarships for underprivileged students, and student involvement in administration. Early in the year the students merged their demands with the interests of Peru's workers and organized the nation's first general strike. This strike halted most commercial activity in Lima and led the government to establish an eight-hour day for the nation's workers. When the students called another general strike four months later to address their remaining demands, the president broke the strike by arresting 3,000 workers and closing the University of San Marcos for the rest of the year. These strikes hastened the electoral defeat of the president and ushered in a more democratic leader, President Augusto Leguia.

Realizing his debt to the students, Leguia drafted laws meeting most student demands, reorganized the entire education system, dismissed over 20 unpopular professors at the University of San Marcos, and gave the school greater autonomy. This alliance between Leguia and San Marcos' students was short-lived; one year later, when students protested Leguia's civil rights abuses, he closed the University of San Marcos for a year and removed its



rector. Two years later a student/worker protest at the university descended into a riot and Leguia sent troops to close San Marcos, leading to the arrest of several students and the death of one. The university was again closed in 1924 and 1925. Leguia rescinded the school's autonomy in 1928, by which time most of the students' gains inside and outside the university had been reversed.

But the radical environment of the University of San Marcos did produce a more durable effect on Peru's political system. San Marcos student Victor Raul Haya de la Torre served as president of the Peruvian Federation of Students in the early 1920s. In 1924, with a group of Peruvian intellectuals, he founded the American Popular Revolutionary Alliance (APRA). APRA called for the same broad reforms in Peruvian society which San Marcos' students sought. Leguia quickly banned the party. The regime's hostility to APRA led to the repeated closings of the University of San Marcos in the 1920s, culminating in the 1932 closing of the university for three years in response to its continued association with APRA. When the school reopened it had less than 600 students. The University of San Marcos remained a center of protests and maintained a close relationship with APRA as it continued to advocate social change and became Peru's most influential political party.

After World War II the demand for higher education grew as Peru became more urbanized and its middle class expanded. By the 1950s the government began significantly increasing the number of universities to meet this demand. By the early 1960s the influx of middle-class students had renewed criticisms that Peru's universities were isolated from the needs of a modern society. In response, the government increased the universities' emphasis on science to address Peru's lack of trained technicians and increased funding for research at universities. In 1969 the government fundamentally altered all the nation's universities by uniting them into a university

system and creating a National Council of Peruvian Universities to align the schools' goals with the state's goal of national development. Under this law, the University of San Marcos was reorganized and an academic department system was introduced.

In the 1990s university enrollment continues to grow while budget constraints limit the flexibility of universities. Since the 1960s, the level of spending per student has plummeted, a greater number of instructors are part time and professional training and instruction is emphasized over research. Amid these fundamental challenges facing Peru's university system, the University of San Marcos's self-proclaimed purpose is to contribute to Peru's modernization. The university remains the largest and most prominent of Peru's 26 national universities, enrolling over 35,000 students and offering masters degrees in 45 fields and doctoral degrees in 17. Its academic departments publish 19 journals and operate 3 prominent museums in Lima. The University of San Marcos' challenge for the near future remains the definition and fulfillment of its role within Peru's perennially turbulent political environment.

**Further Reading:** Jean Descola's *Daily Life in Colonial Peru* (London: Allen and Unwin, 1968) offers the most detailed history of the University of San Marcos' colonial years. John Tate Lanning's *Academic Culture in the Spanish Colonies* (London and New York: Oxford University Press, 1940) provides an overview of Latin American universities and briefly describes the early years of San Marcos. *Peru: A Short History* (Carbondale: Southern Illinois University Press, 1978), by David P. Werlich, covers the reform movement in early twentieth century Peru and offers a brief history of San Marcos.

—Michael Mundt



# NEW SCHOOL FOR SOCIAL RESEARCH

## (New York, New York, U.S.A.)

<b>Location:</b>	In the Greenwich Village neighborhood of Manhattan in New York City.
<b>Description:</b>	A private university with approximately 30,000 students in six undergraduate, graduate, and continuing education divisions.
<b>Information:</b>	Office of University Communications The New School for Social Research 838 Broadway New York, NY 10003 U.S.A. (212) 229-5667 or (212) 260-9932

The New School for Social Research arose indirectly from the actions of two Columbia University professors who openly defied university president Nicholas Butler's policy by actively opposing World War I in 1917. James McKeen Cattell, a highly regarded professor of psychology and a pacifist, and Henry W.L. Dana, assistant professor of comparative literature and a Socialist, played leading roles in antiwar protests and encouraged young men not to register for the draft. Both were dismissed by the board of trustees.

With their dismissal, professor of history Charles Beard, asserting the right of all people to dissent, resigned from the Columbia faculty. The economist James Robinson, who had a strong interest in cultural education, followed him soon thereafter, and the two set about founding a school designed to be "the antithesis of Nicholas Butler's Columbia." Having gained a pledge of \$10,000 a year for ten years from Whitney fortune heiress Dorothy Straight, Beard and Robinson urged Herbert Croly, a founder of the magazine *The New Republic*, to bring the enterprise to the discussions he regularly held concerning projects that caught his attention. Among those to be found at such meetings were jurist Learned Hand; future justice of the Supreme Court of the United States, Felix Frankfurter; philosopher John Dewey, who felt that education was a moral necessity, a life-long process of "study and exploration" to be applied to every facet of a person's life; economist Thorstein Veblen, who supported the separation of research from undergraduate education; and associate editors of *The New Republic* Walter Lippmann and Alvin Johnson, who would become the first president of the New School in 1921.

The New School for Social Research opened in 1919 in a row of brownstones on West 23rd Street in New

York City's Chelsea district. The first class boasted 200 adult students. The professed focus of the New School was, as its name implied, research, but a lecture series was offered. Early students, enrolled in the school's unaccredited courses, were presented with, among other notables, economist John Maynard Keynes, philosopher Bertrand Russell, and historian and political activist W.E.B. DuBois.

The intent of the founders was to create an environment organized in precisely the way other American universities were not. The installation of full-time administration was avoided until 1922. The oldest-known document pertaining to the school, a 1916 letter from Emily Putnam (the first dean of Barnard College) to James Robinson, is signed, "Yours in Anarchy." Charles Beard, who feared that a large endowment would lull the radical impetus of the school to a languid acceptance of the status quo, was averse to establishing any kind of set address at all. In the beginning years, he was successful in rejecting endowments but unsuccessful in avoiding the establishment of a home for the school.

The original scope of the school was intensely focused, and the goals were lofty. Of the 127 courses offered between 1919 and 1923, the overwhelming majority were in economics, political science, history, philosophy, and anthropology. By 1922, it had to be acknowledged that the lofty goals had not been met. The students had not thrown themselves into research for its own sake. Worse, the expectations of the intellectual left that World War I would prove a watershed of western history had not come true; the New School and its "respectably radical" community of thinkers had not proven as influential as had been hoped, and a financial collapse seemed to be forthcoming.

The New School was originally financed by nearly \$300,000 worth of individual pledges to support the school for ten years. Disillusioned donors soon began withdrawing their funds, and the upstart academy found itself on hard times. A number of tactics and economies saved the day. Professors were attracted because teaching hours were limited to three to five hours per week, thus allowing some to devote more time to research and others to treat their classes at the New School as a second job. Fringe benefits were eliminated and salaries were raised. All of these stratagems allowed the school to attract professors from the most prestigious universities in the northeastern United States, while it acquired a somewhat unconventional student body. The New School for Social Research broke with other schools of the day and fully welcomed—indeed actively sought—Jews and women.



*New School for Social Research*

Nearly two-thirds of the early student body were women, and at least a quarter of the students had what appeared to be Jewish surnames.

The leadership of Alvin Johnson, teacher, economist, and editor, who had been made the first president of the New School in 1921, would see the fledgling institution through four decades of financial troubles and would broaden its interests to include the arts and humanities. Nearly every move the New School for Social Research made from 1923 until 1963 would bear Johnson's stamp.

The first issue Johnson faced concerned the very nature of the school. Was it to be a place for teaching or a place for research? The course that took the New School out of its troubled waters outraged its most important founders. With the closing of the research division in 1922, Beard, Robinson, and Croly departed. Veblen, however, stayed on. To his chagrin, since he was primarily interested in research and working with select students, his fame as a writer and social critic brought hordes of students to his classes. To drive away as many as possible, since he believed that students were interested in entertainment rather than education, Veblen mumbled through his rambling lectures. When Johnson finally dismissed him in 1925, the shift from founding ideals (unfettered research) to the principles of survival as an institution (paid teaching) was complete, if temporary, in Johnson's mind.

By 1926, only one-third of the courses offered were in the areas of public policy, the social sciences, and vocational training in social work and education. (From 1919 to 1922, nearly 75 percent of courses were in those categories.) Most courses now addressed cultural themes. The school's 1927–28 catalogue explained that the policy was to offer "whatever seriously interests persons of mature intelligence."

In 1930, the school moved from the rented row of brownstones on West 23rd Street to a new building of its own at 66 West 12th Street in Greenwich Village. The land for the building was sold by Daniel Cranford Smith, a retired businessman and a New School student, with the mortgage financed in such a way that the New School could arrange for a comfortable loan. Smith, in return, was given a penthouse in the new structure at a nominal rent and free courses for the rest of his life. Boasting murals by Jose Clemente Orozco and Thomas Hart Benton, the building, designed by Joseph Urban and considered an outstanding example of the International Style, has since been renamed the Alvin Johnson Building. The Orozco works are still on view on the seventh floor.

New York in the twenties was home to a large population of young people and families moving upward in social status. Though they lacked cultural education, many had the desire and the money to get it. For a reasonable price, one might hear poet Robert Frost, jurist Felix Frankfurter, writer Thomas Mann, or philosophers Bertrand Russell and John Dewey. Teachers included Martha

Graham and Doris Humphrey (modern dance), Aaron Copland (music), and Frank Lloyd Wright (architecture). James Baldwin (author of *The Fire Next Time* and *Blues for Mr. Charlie*, among other works), Mario Puzo (author of *The Godfather*), and William Styron (author of *Sophie's Choice* and many other novels) were all drawn to the writing program during the 1930s and 1940s.

This interest in culture did not mean that the New School had abandoned social sciences. Founded in the midst of the post-World War I Red Scare, setting its roots in the economic boom of the 1920s, funded entirely by student fees and the contributions of its own staff, the upstart school had to take advantage of every opportunity. In the twenties, the predominant opportunity was a revolution in the arts and humanities. In the thirties and early forties, however, it was provided by the Nazi takeover of Germany and then most of Europe.

With a grant from businessman and philanthropist Hiram Halle, Johnson, himself an anti-fascist activist, began to actively recruit a "University in Exile" from the German intellectual and activist community. This group took the name of the Graduate Faculty of Political and Social Science in 1934, the year after they began operating. Nominally part of the New School, the Graduate Faculty was separately funded and administered, thus allowing for funding from various refugee aid organizations, notably the Rockefeller Foundation and the Emergency Committee in Aid of Displaced German Scholars.

Still not fully accredited by New York state, the Graduate Faculty started with 18 refugee scholars. By the summer of 1939, as Johnson managed to find more and more funding, there were 33 refugee faculty members. Then came the fall of France in 1940. The New School offered to take on over 100 of the resultant deluge of scholars. By the end of the war, Johnson and the New School had saved 167 scholars and their families.

The Graduate Faculty not only brought with it a mighty stack of credentials and major scholarly reputations, but it also allowed the granting of the New School's first degrees. Graduate degrees became available in economics, philosophy, political science, psychology, and sociology under a provisional charter from the New York State Board of Regents, which meant that the board of regents actually conferred the degrees for the New School. Emphasis was given to "interdisciplinary study and broad theoretical learning in the social sciences."

The émigrés had left Germany for predictable reasons. About half were Jewish, and the group had a decidedly leftist, social-democratic bent. The first dean of the Graduate School, Emil Lederer, had long concerned himself with the effects of technological development and the rising power of corporations. Gerhard Colm, another of their number, argued that the state should take direct action to ensure high levels of employment. Also among the German exiles was Weimar-era director Erwin Piscator, who founded the Dramatic Workshop. Its impact on



American culture was immense and is still felt. Writers Tennessee Williams and Arthur Miller worked on film scripts. Actors Marlon Brando, Harry Belafonte, Rod Steiger, and actress Shelley Winters emerged from the Dramatic Workshop. Piscator, however, was openly a Marxist, the type of political position that would draw attention to the New School after the war.

In February 1942, a free French academy, which actually taught its classes in French, opened as a temporary and independent part of the New School. Under Harvard art historian Henri Focillon, *L'École libre des hautes études* granted degrees by the authority of Charles DeGaulle, who also gave financial and political support, thus making the *École* an official organ of the French resistance. At one point, 65 French, Belgian, and Russian émigré instructors were teaching more than 200 courses to nearly 1,000 students. Not associated with the New School since briefly after the war, *L'École libre des hautes études* still exists on its own as a proponent of French culture in New York City.

In 1941, the New York State Board of Regents awarded the New School an absolute charter, in effect allowing the school to confer degrees on its own. In 1943, the Senior College was founded, offering the second half of an undergraduate degree to returning veterans and other adults who had completed two years elsewhere. That same year, the Adult Education division was split into the School of Politics, under Hans Simons, and the School of Philosophy and the Liberal Arts, under Clara Mayer. Mayer had been associated with the New School since its beginnings. The daughter of a wealthy New York real estate agent, she had recruited several family members to the school's cause and had helped enormously in the school's financial crisis in 1922.

Immediately after the war, the emergence of Greenwich Village as a creative center fed a new wave of creative students to the New School's adult division, particularly in writing and the visual arts. Arts programs continued to expand, although, for financial reasons, Piscator's Dramatic Workshop became a separate entity in 1949. Piscator himself fled the country in 1951 to avoid being called by the House Committee on Un-American Activities. During the McCarthy era, the New School kept some of its leftist posture, and in the 1950s, it came out against what Johnson and others described as a "new witch hunt." At least four avowed Marxists were allowed to go on teaching, since they denied being members of the Communist Party or any other secret organization. However, revelations in Johnson's private letters showed that he had been holding regular meetings with the FBI since the 1930s to report on faculty members.

In the midst of the McCarthy era, the New School found itself in the midst of an embarrassing incident of its own making. The Orozco murals, which were hung in a room sometimes used as a cafeteria, contained a section presenting heroic depictions of Lenin and the Russian

Revolution. In 1951, the trustees told the administration to cover that section; later they ordered it removed. Objections were raised, and an argument followed in which it was pointed out that anyone who wanted to see the murals had a right to do so; however, the board concluded that their presence in a public place (the cafeteria) "violated the liberties of those who found them objectionable." Finally a compromise that pleased no one was reached. The "Soviet section" would remain covered whenever the cafeteria was in use. As Peter M. Rutkoff and William B. Scott commented in their history of the New School, "at the very time that McCarthy and his ilk had largely discredited themselves, the New School had managed to appear both cowardly and stupid."

The McCarthy era, however, did not stop progress at the school. Innovation continued. The Human Relations Center, which offered the first day classes "aimed exclusively at meeting the educational needs of mature women," was opened by the adult division in 1951. It was renamed the Vera List Center in 1987.

After many years of turbulence, John R. Everett took over as the fifth president of the New School for Social Research in 1962, and the first president, Alvin Johnson, fully retired in 1963. Though he had officially retired at the end of the World War II, the governance of the school had never been successful without his approval. Bryn Hovde, Johnson's immediate successor as president, had resigned largely because he had never been allowed to truly assume authority. The third president, Hans Simons, was one of the German exiles of the University in Exile, brought in and promoted to be head of the School of Politics by Johnson himself. The fourth president lasted but a single day in his office. His successor Henry David, appointed in 1960, relieved Johnson's head of the School of Philosophy and Liberal Arts, Clara Mayer, which proved a disastrous mistake. As Rutkoff and Scott pointed out, "In one stroke the New School lost its most loyal administrator, the generous financial support of her family, the backing of its German-Jewish constituency, and the loyalty of much of its most effective faculty."

Everett's appointment, though he was himself a Johnson protégé, represented a sea change. From this point forward, though it would maintain the principles of its founders, the New School for Social Research would go steadily, quickly, and aggressively forward to become a major modern university. In pursuit of that goal, the Institute for Retired Professionals opened in 1962 to serve older citizens. Two years later the J.M. Kaplan Center for New York City Affairs, the first academic center dedicated to a single city, opened. Parsons School of Design (established 1896) was acquired in 1970 and became the third major division of the New School, the others being the Graduate Faculty of Political and Social Science and the Adult Education Division. The fourth major division, the Graduate School of Management and

Urban Policy, opened in 1975. The Seminar College, now called the Eugene Lang College, was established in 1978 as the first complete undergraduate school.

At least partly because of its founders' belief that education should be applicable to the present, the New School for Social Research is still very much a work in progress.

**Further Reading:** Peter M. Rutkoff and William B. Scott's *New School: A History of the New School for Social Re-*

*search* (New York: Free Press, and London: Collier Macmillan, 1986) provides a thoroughly researched and well written account of the school's history. Claus-Dieter Krohn's *Intellectuals in Exile* (Amherst: University of Massachusetts Press, 1987) provides a history of the professors who fled Nazi-dominated Europe and found an intellectual home at the New School for Social Research.

—Robert Schoenberg

# NEW YORK UNIVERSITY

## (New York, New York, U.S.A.)

<b>Location:</b>	In the Greenwich Village neighborhood of Manhattan.
<b>Description:</b>	The largest private university in the United States with a total enrollment of approximately 49,000 in undergraduate, graduate, professional, and non-credit programs.
<b>Information:</b>	Office of Undergraduate Admissions 22 Washington Square North New York, NY 10003 U.S.A. (212) 998-4500

In the early 1800s, many Americans were concerned about the quality of education in the country, and nowhere was this truer than in the nation's largest metropolis, New York City. Fallout from the Industrial Revolution and the 1825 opening of the Erie Canal had swelled the size of the city of New York and its working class. There was little educational opportunity for this group, and Columbia University, like Harvard, was regarded as an aristocratic institution, offering a limited and strictly classical education to very few people (about 100 students in 1829). In addition, it was strictly sectarian, with close ties to the Episcopal Church.

When Andrew Jackson assumed the presidency of the United States in 1828, the balance of power in the country shifted from the landed gentry to the farmers of the west and the working class of the east. Fortunately there were those among the well-born class who were wise enough to recognize that it would be in the country's best interest to widen the scope of higher education to prepare a wider segment of the population for this new society.

At this time American colleges were almost exclusively administered and staffed by members of the clergy, and were largely aimed at training new clergy. But as the country grew, there grew a desire to loosen the sectarian control of the educational system. Many families wished their sons to receive a college education to prepare them for occupations other than those in the church. In addition, the growing mercantile class distrusted the clergy as administrators and teachers of science and rational thinking. The year 1828 brought news of the founding of a new London University aimed at practical instruction for the middle class. This news added impetus to those who favored a practical course of study for the class of people referred to then as "mechanics."

Despite the anti-sectarian sentiments of some New Yorkers, the first person reputed to have spoken of the idea of a university in New York was the Reverend Alexander Gunn, who allegedly mentioned his plan to the Reverend Jacob Brodhead. These two brought other men into the discussion and the first meeting, of which no formal record remains, took place on September 23, 1828. More than a year later, on December 2, 1829, an editorial in the *New York American* mentioned a movement to create a university in New York, and on December 16, 1829, the first formal meeting occurred to deal with the subject. Among the nine founders of the university at these first meetings were two clergymen, one banker, one lawyer, two merchants, two physicians, and one man of leisure. On December 30 the meetings became formalized, with Reverend James M. Mathews, a former pastor of the South Dutch Reformed Church, elected as chairman, and John Delafield, a member of a wealthy banking family, as secretary. A public meeting was planned for January 6, 1830, at which 38 local citizens were invited to meet with the founders.

The meeting was successful and exciting for founders of the new university because General Morgan Lewis, the son of a signer of the Declaration of Independence, attended. Though Lewis had not been formally invited, the group was so thrilled by his appearance that they elected him chairman of the meeting. One of the founders, Reverend J.M. Wainwright, read a long paper on the "Expediency and Means of Establishing a University in the City of New York," which was later distributed to the public; it is considered the first printed source of the university's history. The meeting attendees appointed committees to pursue various tasks, including applying to the state legislature for a charter. They also created a standing committee of nine people to oversee the general affairs of the university; John Delafield became head of the committee to solicit subscriptions.

In response to the need to show donors tangible plans for the proposed university, the subscription committee presented an organizational outline of the proposed university to the standing committee on January 14, 1830. This report was published in newspapers and included three important features: all university offices were to be open to all denominations; all areas of science and literature were to be taught; and professors were to depend mainly on fees collected from their students. This financial arrangement, modeled on the German system, was intended to be "an important stimulus . . . to constant improvement and attention to duty." The university was to be a joint-stock corporation with shares selling for \$25





*New York University*

each. The shareholders were then to elect a board of 32, which would control the direction the institution would take. On July 29, 1830, approximately six months after the initial forming of the subscription committee, John Delafield reported that the target \$100,000 had been promised to the university. (Subsequently, when less than half the pledged amount had been collected, speculation arose that Reverend Mathews had padded the list with false subscriptions to make certain that the drive would not appear to fail.) The shareholders were then invited to a meeting on July 31, to nominate members of the first council of the university.

On October 15, 1830, after much work by the nominating committee, 175 people were certified as subscribers and a list of nominees for office was approved, creating the first council of New York University. At the council's first meeting on October 18, it elected Albert Gallatin, former secretary of the treasury under Thomas Jefferson, as its first chair. He was a strong believer in the need for both nonsectarian university control and a practical course of study. He expressed this belief in a letter to a friend in 1833: "It appeared to me impossible to preserve

our democratic institutions and the right of universal suffrage unless we could raise the standard of general education and the mind of the laboring classes nearer to a level with those born under more favorable circumstances."

Among the many jobs facing the new council were organizing the university's plans for instruction. In September, the first council, the original standing committee, had decided to convene a group of eminent scientists and teachers from around the country to obtain their advice on the direction the new university should take. Approximately 50 distinguished men joined the council for this extended meeting which began on October 20, 1830, at City Hall. Among the attendees were Edward Livingston, soon to become Jackson's secretary of state; S.R. Betts, judge of the Federal District Court in New York City; and Henry E. Dwight, president of Yale.

According to historian T.F. Jones:

John Delafield suggested certain topics for discussion: the ways in which the examples of European universities should be followed in the United States; the importance of extensive libraries; the advantages

and disadvantages of lectures or recitations in teaching; the importance of introducing instruction in English Literature and Government, etc.

Professor Vethake of Princeton suggested the abolition of a rigid curriculum, an idea which later evolved into the elective system. Vethake also proposed to replace the A.B. degree with the baccalaureate in literature for those graduates who had studied the classics, and the baccalaureate in science for those who had studied science. He also proposed the general examination for degree granting. Albert Gallatin also suggested a name for the practical course of study, which he called an "English College," one in which neither Greek nor Latin would be required.

By late November the council had named the new school the University of the City of New York. They made several other decisions as well, resolving that the council, chosen by the shareholders, would remain the ultimate authority with a president as chairman; and a chancellor, who would be elected every four years. On January 31, 1831, Albert Gallatin was named president, Morgan Lewis vice-president, John Delafield secretary, and the Reverend James M. Mathews chancellor. On this same day, the council completed a long application for incorporation to the legislature of New York state. Thus, four months later, on April 21, 1831, the University of the City of New York was incorporated.

The chancellor and a group of instructors were inaugurated on September 26, 1832, and instruction began on October 1 with 108 students in a rented building, Clinton Hall, at the corner of Nassau and Beekman Street in what is now referred to as Greenwich Village. In 1835, the university finally moved to Washington Square into a new building which was demolished in 1894 when a new structure, Main Building, was erected on the east side of Washington Square Park. Today the main Washington Square campus contains more than 30 buildings. The stone for some of the early buildings was cut by convicts in the prison at Sing Sing. The use of convict labor precipitated one of the city's first labor demonstrations—the Stone Cutters' Riot, during which the city's masons marched in protest.

One of the university's most famous instructors was also one of its first. In 1832, Samuel F.B. Morse was hired as a professor of sculpture and painting. In his studio in University Hall, he developed the first working telegraph. Samuel Colt of "revolver" fame was also a member of the faculty. Colt was a lodger in the Gothic tower of the university, as were poet Walt Whitman and artist Winslow Homer.

The university has expanded considerably since its beginning, adding schools and diversifying its student body. New areas of instruction were added early in the university's history. As early as 1835, the school of law, headed by Benjamin F. Butler, attorney general of the

United States, opened. In 1854, an engineering school was added, and in 1890, the first school of pedagogy in the United States opened at the university. (There had been other teacher-training institutions, but this one was the first that was on a par with the professional schools in law, medicine, etc.) From the first, the school of pedagogy admitted women; in 1887 the school of arts and sciences admitted them. In 1890 the university revised its charter and severed itself from the close clerical and political ties that had resulted from the original joint-stock funding of the institution. Although independence from the clergy was one of the primary goals of many of the founders, it took almost 60 years for that to be realized.

In 1892 the university bought 18 acres on Fordham Heights (later called University Heights) in the Bronx, and in 1895 the undergraduate University College and the engineering school moved to this new campus, which had been designed by Stanford White. At the same time, the original building at Washington Square was razed and the Main Building, which still stands, was erected there. Soon after, on July 8, 1896, the university's name was changed to New York University.

During World War I, NYU trained field soldiers, officers, and ambulance drivers, which helped offset a reduction in the enrollment of young men. By the end of World War I, the university had added another campus in lower Manhattan's financial district, and it occupied other buildings in Brooklyn and Newark, New Jersey. During World War II, classes were filled with women, who replaced absent soldiers.

The university underwent a historic restructuring, as the result of a self-study undertaken in the 1950s. Heretofore the university had been run by a single official, the chancellor. Now the administrative responsibilities were to be assigned to a president, while the chancellor would direct academic affairs. The council became the board of trustees in 1955, and in 1956, NYU had its first president.

The 1970s brought a serious financial crisis to the university. In an effort to increase the university's endowment and decrease its deficit, President James M. Hester (president from 1962 to 1972), formed a commission to study the crisis. The result was the sale of the University Heights campus, as it was deemed too costly for the university to support two large campuses. Selling the campus enabled the university to devote its energies to one location. At the same time, Hester saw the need for a library and wanted one that would serve as a focus for the remaining Washington Square campus. This aim he accomplished with the building of the Elmer Holmes Bobst Library and Study Center, designed by Philip Johnson. This large, airy building, with its many-storied central space, was completed in 1973 and contains more than 2.5 million volumes.

In 1984, NYU's board of directors embarked on a major fundraising effort. Pledging to raise \$1 billion in 15 years, the university instead reached its goal five years

ahead of schedule, in 1994. Interestingly, after the goal was reached, the university received what may be the single largest gift any American university has ever received—the late Sir Harold Acton's estate, La Pietra, in Florence, Italy, estimated to be worth between \$300 million and \$500 million.

Rather than keeping the money in the university's endowment, the board chose to use the funds to make major improvements in many areas of the university, among which were additions to the faculty, including many scholars from such institutions as Princeton, Harvard, Stanford, and Chicago. The university spent \$600 million on academic programs and more than that amount on construction and renovations, including the opening of a neural science center, a new performing arts center, an institute of mathematics, and an Italian studies center.

Though it has been in existence only since the mid-nineteenth century, NYU has produced an impressive list of alumni, including former New York mayor Ed Koch; the late New York senator Jacob Javits; authors Joseph Heller and Lillian Hellman; philanthropist Avery Fisher; economist Alan Greenspan; and Nobel laureates Gertrude Elion and George Wald. Wald shared the prize in medicine or physiology in 1967, and Elion shared the prize in medicine or physiology in 1989.

One school that has brought particular attention to NYU is the Tisch School of the Arts, especially its film and television program. In a recent *U.S. News and World Report* ranking (based on views of scholars and performing arts professionals), the film program was tied with the University of Southern California for first place; the drama program was second only to Yale. Among the alumni of the graduate division have been directors Martha Coolidge, Spike Lee, and Martin Scorsese.

One hundred and sixty-five years after the idea of creating a university for the city of New York first emerged, New York University has become the largest private university in the United States.

**Further Reading:** *New York University 1832–1932*, edited by Theodore Francis Jones (New York: New York University Press, 1933) provides an exhaustive view of the university's first 100 years. *The WPA Guide to New York City*, edited by Lou Gody and others (New York: Pantheon, 1939) offers information on the university in the context of New York City in the 1930s.

—Joan Wilder



# NORTHEASTERN UNIVERSITY

## (Boston, Massachusetts, U.S.A.)

<b>Location:</b>	In the Back Bay section of Boston, between the Museum of Fine Arts and Symphony Hall.
<b>Description:</b>	A private, independent, nonprofit institution enrolling approximately 15,000 students in undergraduate and graduate schools.
<b>Information:</b>	Office of Undergraduate Admissions Northeastern University 150 Richards Hall Boston, MA 02115 U.S.A. (617) 373-2211
<b>Visiting:</b>	Campus tours led by undergraduate guides are available. Call the Admissions Office at Richards Hall at (617) 373-2211.

In the late 1800s, the philosophy that was to become the cornerstone of Northeastern University represented two firm beliefs: education should be affordable, and all educational institutions should be responsive to the needs of the community. This philosophy varied radically from that espoused by the traditional institutions in Boston at the time. The established classes provided by Harvard, Boston University, and the Massachusetts Institute of Technology (MIT) were available to serve the scholarly elite, students whose family wealth allowed them the luxury of an expensive four-year education. These institutions served their purpose but a significant number of students were excluded.

The seedling idea for Northeastern University began as a random selection of classes offered by the Boston Young Men's Christian Association (YMCA), called the Evening Institute For Young Men. Classes included English literature, vocal music, mechanical drawing, parliamentary law, penmanship, bookkeeping, arithmetic, and several languages. The classes were free, open to all, regardless of sex, occupation, race, creed, or color. They provided a growing service to the community of tradesmen, mechanics, and students in the Boston area. By 1895, class sizes were growing rapidly but women were now excluded. Seven hundred and thirty-three students enrolled in 24 classes. A new YMCA building was built on the corner of Berkeley and Boylston Streets to support the increase in enrollment.

It was clear to the directors of the Boston YMCA that a more organized and systematic approach to educational

work was necessary. In May 1896, the board appointed a full-time educational director, Frank Palmer Speare, who brought to the task his experiences as a teacher in public and private schools as well as an enthusiasm for the promotion of education. Speare departmentalized courses under the headings of business, drawing, language, music, science, and physiology; he increased the complexity of the examination and admissions system, instituted a reporting system, and added a large amount of equipment. Within one year of his appointment, Speare prevailed upon the directors of the Evening Institute to establish an Evening School of Law that would better serve the needs of those studying for the bar examination. Traditionally, a prospective attorney prepared for the bar by reading law in a law office. However, legal knowledge was becoming extensive and specialized and a student aspiring to a law career was often restricted to the practice on which his mentor concentrated. Speare's program, initiated on October 3, 1898, had two objectives: preparation for the bar examination of the commonwealth of Massachusetts, and an accumulation of legal knowledge for professional use in business, court procedures, and other areas of work. The growth and development of the program of legal study was affirmed in 1904 when Massachusetts incorporated the Evening Law School of the Boston Young Men's Christian Association with the power to grant LL.B. (Bachelor of Law) degrees. This acceptance of the law school reinforced the YMCA board's belief that institutions with unique ideas could compete with more traditional schools.

At the same time, in Cincinnati, Ohio, a movement was underway that would have significant impact on the foundation that was to become Northeastern University. Dr. Herman Snider, a former engineer from Lehigh, Pennsylvania, began working on a theory for the preparation of engineers. It was Snider's belief that technical students should have some way of relating the outside world to their study of methods and practices. In 1906, at the University of Cincinnati, Snider was given permission to offer an experimental program known as "cooperative engineering." Six pairs of mechanical, electrical, and chemical engineering students were teamed with 15 Cincinnati companies for a six-year work-study program. (Many skeptics felt this program was impractical, pointing out that a conventional engineering program could be achieved in four years.)

Reading about Snider's work, Hercules Geromanos, dean of the Polytechnic School became convinced that the "co-op" philosophy was applicable to Boston students. In 1909, with the support of Frank Palmer Speare



*Northeastern University*

and the YMCA, Geromanos announced the first day school of "cooperative engineering." Eight students enrolled in the program and four Boston companies agreed to accept them: Boston and Maine Railroad, Boston and Albany Railroad, Boston Consolidated Gas, and Boston Elevated Railway. The students alternated between one week of study and one week of work at a pay rate of five to ten dollars a week. By 1912, the student body had increased to 70 and the cooperating companies to ten. The earn-as-you-learn idea had taken hold.

During the next few years, the YMCA Institute worked diligently to affirm its commitment to providing "co-operative education by day and adult education by night." In recognition of those efforts, the commonwealth of Massachusetts agreed to the creation of Northeastern College on March 30, 1916. Its purpose was to "furnish instruction and teaching in all branches of education in connection with the Boston YMCA and to do all things connected with or incidental to the purposes of its organization." Frank Palmer Speare was named the college's first president. Although two of the college's schools, the Evening

Law School and the School of Commerce and Finance, had previously been given degree-granting status they did so directly under their own names. It was not until March 20, 1920, that governor Calvin Coolidge gave Northeastern College authorization to grant bachelor's degrees in civil, mechanical, chemical, and electrical engineering.

Under Dr. Carl S. Ell, the new dean of the School of Cooperative Engineering, the Department of Cooperative Work and Student Affairs was established. Within the department, a strict policy of close contact between Northeastern and the cooperating companies developed. Ell was convinced that the period of classwork should equip the student with a unit of subject matter to apply on the job, but the time should not be of such length as to break the student's feeling of identity with the university. After much experimentation, it was decided that a ten-week plan provided the greatest benefit. The coordinators made visits once during every ten-week period to firms within a day's commuting distance of Northeastern. If the company was farther away, the coordinators traveled once or twice a year. In these meetings, the supervisors would



review the student's progress and assist the employers in improving or adapting the program to best meet their needs and to keep abreast of the latest developments in their area of specialty.

Within a short time, world events affected the growth of Northeastern's cooperative programs. During World War I, the United States government took over the School of Cooperative Engineering and converted it into a Strategic Army Training Corps. Barracks and mess houses were constructed and new courses such as foreign trade, military French, and airplane mechanics were offered. During the Depression, cooperating firms were reluctant to employ students while family men were in need of work. Nevertheless, the Department of Cooperative Work continued to maintain relationships with the employers who found ways to use students for temporary jobs and special projects until they could resume their previous work-study relationships.

Northeastern's ability to maintain its cooperative service and commitment to the community during these difficult times expanded its educational influence. That influence was most notably reflected in 1936 when Northeastern changed its title from "College" to "University" and separated from its long-time affiliation with the Boston YMCA. This distinction allowed Northeastern University to begin to formulate a financial plan for its expansion into new buildings and property, and to propose a system of endowments to foundations and individuals. Many results of those efforts were realized under the new administration. As Northeastern's second president, Ell was responsible for the completion of the science hall (1941), student center and alumni auditorium (1947), Dodge Library (1952), Cabot Physical Education Center (1954), Haydon Hall (1956), and the graduate center (1959), in addition to increasing the school's assets from \$2 million to \$30 million.

By 1960, Northeastern's third president, Dr. Asa S. Knowles had begun to envision the university's role in cooperative education beyond the walls of the campus and the streets of Boston. The first step Knowles took was to change the Office of Cooperative Work to the Department of Cooperative Education, and the title of director to dean. According to Knowles, "Co-op is not just part-time work or a summer job. It involves a specific training program correlated with studies being pursued."

During his tenure, Knowles pioneered the addition of numerous cooperative relationships including mergers with the New England College of Pharmacy and Bouve/Boston's College of Physical Education and Physical Therapy. Knowles also extended cooperating graduate schools in law, accounting, business administration, and chemistry, at the doctoral level. But these changes still limited Northeastern's sphere of influence. Knowles wanted the virtues of "co-op" extended to the larger world.

In 1962, serving as its vice chairman, Knowles along with others organized the incorporation of the National Commission on Cooperative Education. The commis-

sion's purpose was to serve as the voice of cooperative education, particularly in Washington in hopes of attaining favorable financial support from the federal government. When President Lyndon Johnson's War on Poverty targeted higher education as a means of social mobility, the commission set to work. By 1965, the Higher Education Act included specific language for the introduction, support, and implementation of cooperative education.

When several institutions expressed interest in establishing cooperative education programs, the Ford Foundation's Fund for the Advancement of Education agreed to finance six colleges for a three-year period if Northeastern agreed to provide the guidance. Northeastern accepted the assignment and was given \$143,000 in grant monies, with which the university opened its Center for Cooperative Education to provide direction and strategies for specific implementation to other institutions.

While the work of the commission stimulated interest in the Cooperative Plan of Education among legislators and administrators, some faculty members remained unconvinced. Both Knowles and the vice president of cooperative education, Roy L. Woodridge, understood the concerns, which were the result of an absence of scholarly material on the method. To ease the problem, Northeastern contacted the Ford Foundation with a proposal to establish a chair in cooperative education research at the university. A year later in 1968, Dr. James W. Wilson became the first research professor of cooperative education.

In the 1970s, recession and inflation triggered new interest in the cooperative method. In April 1972, a National Conference on Cooperative Education convened to explore issues concerning educators and employers: doubling of degrees granted since the 1960s but an increase in professional and managerial jobs by only a third; approximately 400,000 students who had taken out federally insured loans and then declared bankruptcy or refused to repay; the leveling off of federal government grants to education. An article published by Knowles in 1975 supported the view that cooperative education was well suited to meet these concerns. According to the plan, cooperative education, by its very nature, kept in close touch with staffing needs, served 75 to 80 percent more students without necessitating an increase in the institution's resources; it also lessened a student's dependency on government grants and loans because of its pay-as-you-go design.

From the discussions at the conference, a Cooperative Education Consortium of New England was established with Northeastern designated as the group leader and fiscal agent. Under this plan, the consortium guided participating schools in student placement procedures and provided counseling and financial assistance. During this time, the National Commission for Cooperative Education continued its work in Washington until, under a new Higher Education Amendment passed in 1976, cooperative education became an individual line item.



Knowles's belief in the worldwide influence of Northeastern's "co-op" program became a reality when he was invited to speak at the second Anglo-American Conference in England in 1973. By the close of his administration two years later, Northeastern was the largest private university in the nation in terms of enrollment, a leader in adult and cooperative education, and the owner of 330 acres of land with a total of 20 new buildings and \$70 million in property value assets.

On May 13, 1975, Northeastern University elected its fourth president, Kenneth G. Ryder. During his tenure, the attitude toward cooperative education shifted from the traditional emphasis on the program's financial advantages toward its educational ones. With the rise in family income and the relative prosperity of the mid-1980s, financial considerations were less crucial than they had been. Ryder's philosophy focused on the transference of skills and the reinforcement of classroom experience. The first year of Ryder's administration coincided with America's Bicentennial and many visitors from around the world came to Boston, and also to Northeastern University. Ryder viewed this as a golden opportunity to increase the influence of Northeastern's cooperative education experience. The international exchange was expanded when, in the spring of 1980, 25 Northeastern delegates traveled to the People's Republic of China at the invitation of a delegation of Chinese scholars who had previously visited the university's Institute of Chemical Analysis, Applications, and Forensic Science.

In 1981, Northeastern hosted the Second World Conference on Cooperative Education. Educators, business, labor, and government representatives from 27 countries met to discuss how cooperative education could provide training and job experience to meet worldwide professional staffing shortages. At the following year's conference, Ryder was named founding chair of the new World Council on Cooperative Education. The council was charged with developing a worldwide awareness of cooperative education as an educational tool and strategy.

During these discussions with representatives of foreign countries, Ryder began laying the foundation for the international placement of Northeastern students. Because the world conferences made it possible for an understanding of the realistic employment needs of other countries, there was less confusion about where to place Northeastern students and more willingness on the part of companies to enter exchange arrangements, so that universities with exchange agreements could simply "swap" students.

While most international cooperative placements in the 1980s were exchanges, some direct placements were made. Many direct placements were made with Israel through the efforts of Stephen Kane, associate professor of cooperative education, who had developed numerous contacts during the mid-1970s. In most international placements, the pay was less and students had to be fluent in the language of the country. The students were required to complete two years of coursework at Northeastern, with grades well above average. For those students who met the requirements but could not afford the travel costs, President Ryder initiated a \$100,000 fund to cover airfares and salary differences.

Currently, the Department of Cooperative Education and the International Cooperative Education Program are housed at the Stearns Center on Huntington Avenue. Every freshman is assigned a co-op advising team to aid in finding them appropriate work experience. All the colleges of the university offer cooperative opportunities. International students are often assigned to employers in their home countries.

From its beginnings in the YMCA building with an enrollment of eight to a 55-acre main campus with approximately 6,000 undergraduates and 2,300 employer locations in 27 states and 25 foreign countries, the Northeastern Cooperative Education experience has flourished. While the success of the program has been achieved in part by the dedication of leaders such as Frank Palmer Speare, Carl S. Ell, Asa S. Knowles, and Kenneth G. Ryder, it cannot be forgotten that these men would certainly not have achieved these results without the "cooperative" experiences of other men, women, and students associated with the Evening Institute, Northeastern College, and Northeastern University.

**Further Reading:** Northeastern University has published several comprehensive histories of its development. Chief among these are *The Origin and Development of Northeastern University 1898-1960* by Everett C. Marston (Boston: Northeastern University, 1961); and two volumes by Antoinette Frederick, *Northeastern University: An Emerging Giant 1959-1975* (Boston: Northeastern University, 1982), and *Northeastern University Coming of Age: The Ryder Years 1975-1989* (Boston: Northeastern University, 1995).

—Phyllis Brandano

# NORTHWESTERN UNIVERSITY

## (Evanston, Illinois, U.S.A.)

<b>Location:</b>	Northwestern's main campus is located in Evanston, Illinois, approximately two miles north of Chicago. A second campus on Chicago's Near North Side primarily houses the university's professional schools.
<b>Description:</b>	A private research university occupying two campuses, and enrolling more than 17,000 students in 12 academic divisions.
<b>Information:</b>	Department of University Relations Northwestern University 555 Clark Street Evanston, IL 60208-1230 U.S.A. (847) 491-4884

The Methodist Church founded Northwestern University in 1851 with the intention of educating youth from across the original Northwest Territory, and they named the institution according to that purpose. However, the church leaders were especially concerned to meet the educational needs of Chicago and its surrounding communities. There were already scores of colleges and universities in the midwest, including 12 in the young state of Illinois; yet Chicago had none. Nine members of the church met in a law office downtown in the summer of 1850 and drafted the university charter, which was approved by the governor the following January. That summer, the newly elected trustees decided to purchase a 379-acre site north of the city in Evanston, Illinois, where the present north campus lies.

The date of 1851 has been somewhat arbitrarily chosen as the year of the university's foundation, for like any complex institution, Northwestern came into being gradually. Clark Hinman was elected the university's first president in 1853, before there even existed a school over which to preside. His job was to raise an endowment of \$200,000, half to be earned through the sale of \$100 scholarships. Hinman died in 1864 at the age of 35, a little more than a year before the first building on the new campus opened for classes. That year, a faculty of two instructed ten students, principally in mathematics, literature, and religion. (The emphasis on religious and moral studies at Northwestern faded gradually in the early twentieth century.) To ensure future classes of qualified students, the university opened a preparatory program in 1856 which enrolled nearly twice as many students as the college through 1869.

Following more than a decade of financial difficulty, Northwestern embarked on an astounding period of growth. In 1869, the stately University Hall was completed. In 1869, the trustees voted to admit women on equal terms with men, and four years later integrated the Evanston College for Ladies, forming the Woman's College of Northwestern University. In 1870, the Chicago Medical College was integrated with Northwestern, which only then became a university in more than name. In 1873, Northwestern opened the Union College of Law in conjunction with the University of Chicago. The combined academic and financial strength of the two institutions permitted the law school to maintain standards and a curriculum comparable to those at Yale and Harvard in its first year of operation, and by 1876, it enrolled 134 students. Still more programs and buildings followed.

Northwestern's rapid expansion was perhaps too rapid, for the university fell on hard times in the mid 1870s. The Panic of 1873 and the depression that followed devalued Northwestern's land holdings and curtailed the influx of donations. The university was in debt for almost ten years and was unable to pay its professors in full for most of the same period. In addition, enrollment declined as competing educational institutions opened throughout the midwest. Thus, Acting President Oliver Marcy found it necessary to recommend to the trustees that the College of Technology be closed until a time when Northwestern could afford its proper equipage and staffing. Marcy determined that the university would be sustained by ensuring its high academic standing, for thus it would draw both students and benefactors. He pleaded with the trustees to do the following: concentrate spending on faculty and equipment; cease coeducation, for he believed that women were not capable of serious scholarship; and appoint a permanent president who would instill the university with vision and character. The trustees accommodated only the last request.

Joseph Cummings, former head of Wesleyan University, was elected president of Northwestern in 1881. His chief task was to raise funds to eliminate the university's debt of more than \$200,000—Governor Evans promised \$50,000 provided that the university contributed the remainder. Cummings accomplished his goal within two years, but he believed that only with more money would the university be able to maintain the high standards it claimed to have. To achieve that end, Cummings eliminated the requirement that students hold certificates from accredited secondary schools to take Northwestern's entrance exams. As a result, enrollment in the College of Liberal Arts rose 60 percent by the end of the decade.



*Northwestern University*



The closing years of Cummings's nine-year term marked the beginning of Northwestern's second period of expansion and improvement. By the end of his tenure, Cummings appointed six new professors, the Union College of Law became Northwestern's in full when the first University of Chicago closed in 1886, and ■ College of Dental and Oral Surgery was opened in 1887. The university also constructed several new buildings, most importantly the especially well-equipped Fayerweather Hall of Science and the Dearborn Astronomical Observatory. Cummings suffered a fatal heart attack on May 7, 1890, while finishing an annual report for the trustees which began, "Men die but institutions live on."

In 1890, the trustees elected Henry Rogers the next president of Northwestern, based on his great success as dean of the law school at the University of Michigan during the previous 11 years. Rogers particularly wished to modernize Northwestern in ways that would allow it to keep pace with the rapid technological and educational changes of the late nineteenth century. His initial steps were preliminary. First, he persuaded the trustees to step up their fundraising efforts in order that Northwestern's endowment might approach the daunting size of those of its academic competitors. Second, he more fully unified Northwestern's administration under his office, including the dental and law schools, which were previously almost fully independent. Other changes included the acquisition of the Woman's Medical School of Chicago in 1892, the introduction of doctoral programs, and the hiring of several prominent scholars to join the Liberal Arts College. Rogers also oversaw the construction of the Lunt Library, Swift Hall, the Music Building, and the capacious Fisk Hall on the Evanston campus. Rogers unexpectedly retired in 1900, probably because his ambition that Northwestern emulate such outstanding universities as Harvard and Yale had created tensions on campus. Northwestern's older professors apparently resented their younger, perhaps superior, colleagues.

Campus life at Northwestern in the nineteenth century principally revolved around literary, debate, and oratory clubs, and ever increasingly around fraternities and sororities. During the university's first decade of operation, the majority of students belonged to one of the academically oriented clubs. By 1895, more than 30 percent of Northwestern's students were members of one of the Greek letter societies. Athletics grew increasingly popular and well organized between 1855 and 1900 as well. Rogers was one of seven university presidents from the midwest who met to plan the regulation of intercollegiate athletics in 1895. They produced the Presidents' Rules, and a league which became the Big Ten in 1912.

The university continued to improve its capacity and record for seminal research in the period between Rogers' departure and World War I, and thus to come ever nearer to the stature of its east coast rivals. However, progress was slow for the first several years of the twen-

tieth century, for the university endured a period of ephemeral presidents. Acting President Daniel Bonbright served nearly two years before the trustees found a suitable replacement in Edmund James, but James left two years later, when he was offered the presidency of the University of Illinois, apparently frustrated by Northwestern's slow progress toward first-rate status. Two more years passed under Acting President Thomas Holgate, until finally Abram Harris began a ten-year period of service in 1906, thus restoring the leadership that the university badly needed.

During Harris's administration, Northwestern expanded and modernized in several ways. Numerous buildings were erected on campus, including the Swift Hall of Engineering, the Patten Gymnasium, Harris Hall, and the men's quadrangles. The addition of the Engineering Hall allowed the engineering program, canceled by Rogers, to resume. More significant still, was the opening in 1908 of the School of Commerce, the forerunner of Northwestern's prestigious Kellogg Graduate School of Management. The school was originally organized to train clerical workers for the increasingly complex businesses burgeoning in America between the Civil War and World War I. The original curriculum was accordingly practical: students learned commercial arithmetic, bookkeeping, ornamental penmanship, stenography, typewriting, and secretarial training.

Northwestern was temporarily but dramatically affected by America's entrance into World War I. All of Northwestern's fraternity houses were transformed into military barracks housing some 1,600 students serving in the Student Army Training Corps. More than 100 Northwestern faculty members took leaves of absence to serve as soldiers or civilian employees of the military. Professor John Hayford, of engineering, remained with the Advisory Board on Aeronautics in Washington, D.C. throughout the war. John Wigmore, dean of the law school, helped draft the selective service legislation. Professor Walter Scott of the psychology department helped formulate a method for placing military personnel according to their abilities, and for promoting officers according to their efficiency rather than merely by seniority. The medical school organized a unit of 241 individuals who treated some 60,000 soldiers in France. By the war's end, more than 2,800 Northwestern students, faculty, and alumni participated in the Allied effort, 65 of whom were killed.

A number of notable events unrelated to military matters also occurred at Northwestern during the war years. First, the preparatory academy was closed in 1917, for it was made redundant by the proliferation of good public schools. Second, the school of pharmacy was rendered to the University of Illinois, both because it was operating at a deficit and because it, too, was made redundant by the existence of a capable state institution. Lynn Hough was elected Northwestern's new president in 1917, after first

Harris, and then acting president Holgate resigned, each repeating the complaint of previous presidents that Northwestern's endowment was insufficient for the university to achieve its potential. In 1920, Hough oversaw the purchase of a lot on the corner of Chicago and Michigan Avenues downtown, where the medical and dental schools would be unified when the Montgomery Ward Memorial Building was completed in 1926. Hough resigned two weeks after the land transaction was completed, citing poor health.

In the period between the two world wars, Northwestern had an astounding run of large donations sufficient to fund the sort of improvements called for by many of its departed presidents, and sufficient to carry it through the Great Depression with little compromise. The university's good fortune may have been the result of deliberate actions; the trustees formed a financial campaign committee in 1919, and the following year the newly elected President Walter Scott created a publicity department to entice benefactors. By 1924, the committee had raised an impressive \$8.5 million, \$4 million of which was given in a single grant from Mrs. Elizabeth Ward specifically for the construction of the downtown campus building, subsequently named for her husband. While pleased with the results of the first campaign, Scott was disappointed that just \$1 million was raised for improvements on the Evanston campus. He determined that another \$5.7 million was needed for the undergraduate colleges to remain competitive. His hopes were more than realized, for between 1924 and 1930, Northwestern raised over \$11 million for the Evanston campus, and over \$5 million more for the professional schools. Then in 1928, Milton H. Wilson bequeathed to the university \$8 million in his will, the largest single donation that the university had ever received.

President Scott spent a large portion of Northwestern's riches on new facilities. Four professional schools relocated to new buildings on the Chicago campus in 1926: the medical and dental schools moved into the 14-story Ward building; the School of Commerce into the Wieboldt building; and the law school into Mayer Hall and the Gary library. In 1929, plans were made to extend the Chicago campus by five more acres, purchased in 1927 for over \$2 million, in order to build five hospitals to be associated with the medical school. Passavant Hospital was opened in 1929, but the others were delayed more than 30 years by the Great Depression, and then by war. The Evanston campus received a library, a chapel, women's dormitories, Dyche stadium, schools of music, speech, and education, and science laboratories.

World War II had a more profound effect on the university than did World War I. President Franklin Snyder was elected on September 1, 1939, the same day that the Nazis invaded Poland, and he soon integrated the university into the American war effort. In the summer of 1940, even before the United States entered the war, Snyder

appointed a committee to determine how Northwestern's facilities might be utilized by the military. The psychology department worked with the army to determine methods for personnel selection. The university provided facilities and sometimes instructors for numerous training programs associated with the military, and reserve officer training programs swelled. Most medical and dental students were in the reserves, and the law school enrollment plummeted from 261 in 1939-40 to 57 in 1943-44.

The character of Snyder's ten-year term was chiefly defined by the war, but he is also responsible for nearly doubling the university's net assets and for hiring a higher rank of professors than the university previously retained. The campus was tense under Snyder, for he is reputed to have imposed his will on deans and professors. Snyder accused Professor Paul Schilpp of the philosophy department of behaving unprofessionally when he expressed personal views in class, for example, and he saw that Schilpp was neither promoted nor given salary increases commensurate with his excellent reputation as both teacher and scholar. No serious conflict between the two ever arose, but Snyder's heavy-handed treatment of Schilpp was an embarrassment to the university, and a source of anger among students and faculty sympathetic with the professor. The situation came to a happy conclusion when Schilpp was promoted to full professor in 1950, the year after Rosco Miller was elected Northwestern's 12th president.

Miller was a medical student, professor, and then dean of the medical school at Northwestern before accepting the university's highest office in 1949. During his 25 year administration, he exercised an executive style contrary to that of his predecessor. Miller created a tightly woven administrative hierarchy and delegated considerable powers to those holding lesser offices. He relied upon an administrative council, council of deans, and his immediate staff to keep him informed of the university's affairs, and to coordinate policies. Miller and the trustees generally concerned themselves only with issues related to the university as a whole, while the deans and various committees handled narrower matters independently. Moreover, Miller rendered many of the administrative duties associated with his office to Payson Wild, the vice president and dean of faculties, and devoted himself to managing the university's finances. On the other hand, Miller expected the deans to operate within the framework of a singular university, even when that entailed spending more money on a department than it brought in.

President Miller's goals were familiar: he pledged to raise more money with which he would improve faculty salaries and campus facilities. Miller did remarkably well, for the university raised more than \$270 million in donations during his administration. An impressive \$40 million of the university's acquired funds were set aside for faculty salaries. In 1961, the Evanston campus was extended by approximately 74 acres when the university



filled in the shallow waters of Lake Michigan bordering the east side of the campus, and during the whole of Miller's administration, the university either built, purchased, or remodeled 51 buildings.

In the turbulent year of 1968, Miller faced the only serious case of student unrest ever seen at Northwestern. That May, a group of black students, both graduate and undergraduate, protested the university's "racist structure," and its exceptionally poor record for admitting African Americans; only 160 of 8,000 students were black. On April 12, they had made several strong demands for a degree of authority in decisions regarding admissions, hiring, and curriculum planning. The administration responded with outward sympathy, but made plain that they would relinquish no genuine administrative power. In response to the university's inaction, approximately 100 black students occupied the university business office on May 3. The trustees considered removing them by force, but they were dissuaded by the poor result of such harsh measures at other universities. They decided to negotiate, and the matter was resolved peacefully by the following evening. The administration conceded that it would give black students a voice in decisions that concerned them, while the students accepted the idea that the trustees and administration could not and would not relinquish their authority.

The years of Miller's presidency marked the decline of the university's athletic glories. The football team won the Rose Bowl in 1949, but they were not to return to it until 1995, when they lost to the University of Southern California. In the years between, there has been serious debate about whether Northwestern should withdraw from the Big Ten Conference, in which it is pitted against much larger schools that spend more on their sports programs, but Miller and others at the university have insisted on staying in. Frustrated with their losing teams, the Alumni Advisory Council recommended that Northwestern relax its academic requirements for student athletes, but the administration has refused all such suggestions.

One of Northwestern's most successful presidents was its 14th, Arnold Weber. He came to a fiscally foundering institution in 1985, and in his ten-year administration managed to both balance the university's budget every year and to hold down tuition increases to the lowest percentage of increases in major American universities. While Weber had reason to be proud of the university's achievements in research (research funds

increased from \$64 million in 1985 to \$155 million in 1993), he believed that undergraduate teaching was the main mission of the university. In a 1991 speech, he said, "From the founding of the earliest universities, teaching has been . . . the highest calling of the faculty. It remains so at Northwestern today."

Weber's tenure was not, however, entirely serene. Only three months after he took office, a group of students demanded that Northwestern divest itself of stock in companies which did business with South Africa. These anti-apartheid demonstrations produced arrests of over 120 student protesters. The following year, 32 students were arrested in similar demonstrations.

Another issue that prompted dissension on the campus was the denial of tenure to Barbara Foley, an assistant professor English whose Marxist beliefs caused her to lead a demonstration which prevented Nicaraguan contra leader Adolfo Calero from speaking at the university in 1985. Weber said, "They threw synthetic blood on him and ran a miniriot that prevented him from speaking." Foley was censured by the faculty. When she came up for tenure a few months later, the faculty recommended that she be granted that status, but the provost denied her tenure, and Weber upheld that decision.

By 1993, Northwestern had risen to 13th in the *U.S. News & World Report's* ranking of national universities. In 1991, Weber had said, "as I reviewed the credentials of the incoming class and reflected on my own checkered academic career, I concluded that the only way I could get into Northwestern is as president—the mark of an outstanding university."

**Further Reading:** The only available history of Northwestern that covers events much beyond the turn of the century is *Northwestern University: A History, 1850–1975* by Harold F. Williamson and Payson S. Wild (Evanston, Illinois: Northwestern University, 1976). *The Evolution of Management Education: A History of the J.L. Kellogg Graduate School of Management, 1908–1983* by Michael W. Sedlack and Harold F. Williamson (Urbana: University of Illinois Press, 1983) is very thorough, but does not contain much information about university affairs beyond the Kellogg School. *Northwestern University School of Law: A Short History* by James A. Rahl and Kurt Schwerin (Chicago: Northwestern University, 1960) is similarly limited.

—Christopher Hoyt



# OBERLIN COLLEGE

## (Oberlin, Ohio, U.S.A.)

**Location:** Oberlin, Ohio, ■ community of 8,000, 35 miles southwest of Cleveland.

**Description:** A private, coeducational institution comprised of two divisions, with some 2,400 students enrolled in the College of Arts and Sciences and about 500 enrolled in the Conservatory of Music. The school offers bachelor's degrees in arts or music and selected master's degree programs.

**Information:** Admissions Office  
Oberlin College  
Oberlin, OH 44074  
U.S.A.  
(216) 777-8121

**Visiting:** Guided tours of the campus are available on weekdays throughout most of the year. Contact the Admissions Office for more information.

Founded in 1833, Oberlin College was the first college in the nation to admit women and one of the first to admit African Americans. Known for its abolitionist fervor, Oberlin was a stopping point on the Underground Railroad, transporting runaway slaves from the South to freedom in Canada. Today, the school is noted for its academic program and its outstanding conservatory of music, the conservatory being the first in the nation and today one of the most prestigious. The school retains a tradition of involvement in social issues which, at times, has earned it a reputation for radicalism among its critics. When the college celebrated its 150th anniversary in 1983, *The New York Times* wrote: "In its century and a half, while Harvard worried about the classics and Yale about God, Oberlin worried about the state of America and the world beyond."

Both the town of Oberlin and the college were founded in 1833 by two idealistic missionaries, the Reverend John Jay Shipherd and Philo Penfield Stewart. Shipherd was a revivalist preacher; Stewart was a one-time missionary among the Choctaw Indians. The two literally carved the town and the school out of the wilderness, and then began the challenging struggle for financing so common to the new colleges springing up on the nation's frontiers. The goals of the two men were to establish a model community of Christian devoutness and a college "to train teachers and other Christian leaders for the boundless, most

desolate fields in the West." Both the school and the town were named for Johann Friedrich Oberlin (1740–1826), a French-born Lutheran pastor famed for devoting his life to helping the poor in the Vosges region of France.

The new school began providing instruction for students on December 3, 1833, receiving its charter on February 28, 1834. Four young men made up the first freshman class, among them James Harris Fairchild, who one day would become the school's president. Originally, the school was called "Oberlin Collegiate Institute," because Shipherd considered the name "Oberlin College" too pretentious for the modest level of instruction offered at the time. But in 1840 the school assumed the latter designation following its own detailed study showing its course of instruction to be comparable to that of Yale University.

Both the school and the town were governed by the "Oberlin Covenant," which reflected the strict moral standards of the founding fathers. The covenant forbade drinking, smoking, swearing, gambling, any liberties with the opposite sex, and any recreation or other pleasurable activities on Sunday. When one enterprising student attempted to rendezvous with a young woman, a group of his fellow students took him off for penitential prayer and a flogging.

On March 8, 1834, Shipherd published the school's first circular, stating, among its objectives: "The elevation of female character by bringing within the reach of the misjudged and neglected sex all the instructive privileges which hitherto have unreasonably distinguished the leading sex from theirs." Known as Oberlin's Magna Carta for womankind, this statement foretold not only instruction for women but equal opportunity with men in the pursuit of degrees.

Initially, women studied in Oberlin's "Ladies Department," paying their way by housekeeping, gardening, spinning wool, and making clothes. In 1835 the women of Oberlin College organized a Young Ladies' Association, the first women's club in any college. Two years later, four young women from the Oberlin Preparatory School petitioned and were given permission to join the men's freshman class. Three of them completed the full college course in 1841 and became the first women in the nation on record as earning bachelor of arts degrees.

The addition of women to the student body may have contributed to Oberlin's innovative establishment of a school of music. The school had choral singing almost from its earliest days. Then, in the mid-1860s, Professor George Allen, who had studied under famed American musician Lowell Mason in Boston, officially organized a



*Oberlin College*

music school at Oberlin. This marked the beginning of the Conservatory of Music, a full department of the college, and the first in the nation.

Oberlin's decision to admit women on an equal footing with men was revolutionary for the times. Even more revolutionary was its decision to admit African Americans. In 1835, just two years after its founding, the school was teetering on the edge of bankruptcy. Shipherd sought aid from two wealthy New York businessmen, Arthur and Lewis Tappan. The Tappans were staunch abolitionists who insisted, in return for their financial support, that Oberlin admit students regardless of color. The school's trustees agreed. As a consequence, African Americans became part of the Oberlin College student body at a time when the state of Ohio was still debating whether to admit black children to elementary and secondary schools and when several southern states held it a crime simply to teach African Americans to read or write. By the turn of the century, 128 African Americans had been graduated from Oberlin College, nearly half the total black graduates in the entire country. Mary Jane Patterson, who was graduated from Oberlin in 1862, one year before the Emancipation Proclamation, was the first black woman in the United States to earn a bachelor's degree.

In the years preceding the Civil War, both the school and the town of Oberlin became hotbeds of abolitionism. The town was a major depot on the Underground Railroad, the network of volunteers and safe houses helping escaped slaves to reach freedom in Canada. After the Civil War, more than 500 one-time Oberlin students went south to teach newly freed slaves struggling through the difficult days of Reconstruction. Historian-author Nathan Brandt memorialized Oberlin in *The Town that Started the Civil War*. A bestseller in its time, the book recounts a true episode, known as the Oberlin-Wellington rescue, which occurred in 1858. A fugitive slave named John Price was tracked down and captured by slave-catchers outside the town of Oberlin. A posse of 37 townspeople, including four students and one faculty member from the college, intercepted the slave-catchers at the nearby town of Wellington and freed the fugitive. He escaped to Canada, but the rescuers were indicted under the Fugitive Slave Act of 1850. They spent 83 days in a Cleveland jail, but their act of valor incited nationwide antislavery passions.

With slavery at an end, Oberlin College's humanitarian interests soon extended thousands of miles across the sea. In 1881, a number of the school's theology students traveled to the Shansi Province of China, not only seeking Christian converts but also hoping to found a school of higher education for the Chinese in that region. These pioneers were killed along with many other American missionaries during the turbulent days of China's Boxer Rebellion in 1900. However, the link they forged to Asia grew stronger over the years. The Oberlin Shansi Memo-

rial Association today sends graduates and faculty members to teach in Asian countries and brings Asians to study at Oberlin. In 1989, Oberlin strengthened its historic bond with China by implementing a study-abroad program with Yunnan University in Kunming.

In its earliest years, the course of instruction at Oberlin College reflected a decidedly evangelical mission. Under the leadership of Charles Grandison Finney, a forceful revivalist who served as president of the school from 1851 to 1866, Oberlin earned a reputation for theological zealotry. Finney's successor, James Harris Fairchild, who served from 1866 to 1889, remained committed to the evangelical tradition, but favored a more moderate approach combined with greater social involvement. In his inaugural address he said:

College life, with us, is not peculiar, occupied with its own exclusive interests, pursuing its own separate schemes, and governed by its own code of duty and honor. Each student belongs still to the world. . . . The student still shares in the responsibilities of common life and is here for the purpose of a better outfit for the work before him.

Fairchild also believed that learning should be the means to an end, not an end in itself, and that teachers needed to establish a bond of mutual trust with their students rather than remaining distanced in their own scholastic world. "Oberlin's danger is that in a day of specialists, narrow men will be chosen [as teachers] and so character, manhood, womanhood and inspiring personal power will go," he said. "That would be a disastrous lapse from the Oberlin of former days."

Though Oberlin had been admitting women since 1837, it was not until 1879 that the first woman was appointed to the faculty. Amelia A. Field Johnston became principal of the women's department in 1879, a position in which she remained until 1894, when she became dean. She also taught medieval history from 1878 until 1907.

Another influential voice, later in the century, was Harry Huntington Powers, a French instructor from 1888 to 1892. Educated at the University of Wisconsin and at the Sorbonne in Paris, Powers achieved great popularity with his students but alarmed his teaching colleagues with his unorthodox views. His humanistic concept of Jesus went against traditional teaching and provoked lively debate. He urged the school to stretch beyond its evangelical roots and develop into a full-fledged university. In 1893, he wrote a futuristic article for the school magazine, the *Oberlin Review*, called "A Pedagogue in Wonderland," in which an Oberlin professor awakens after a 100-year sleep to discover a world in which all institutions and social conventions are judged by their benefit to the public good and in which private property and capitalistic enterprises are held



under rigid public control. While Powers' unorthodox views were never widely accepted at Oberlin, his membership on the faculty is indicative of the school's tolerance for a variety of opinions.

The students of Oberlin, themselves, were not above urging change. By the late 1800s, many were complaining about the superficial level of instruction. They demanded higher admission standards, noting that many students left the school before graduation to complete their education elsewhere because Oberlin was admitting students who required secondary-level instruction. They pressed for a broader variety of elective courses and for more qualified teachers, including some who had studied at foreign universities such as those who could be found on the faculties of the nation's better-ranked colleges. A student editorial in the *Oberlin Review* criticized dogmatic teaching methods and advocated new instructors with fresh ideas:

It seems inevitable that one who has taught for many years in the same channel should become intolerant of contradiction, while natural indolence on the part of many pupils leads them to accept without question the dictum of whomsoever their teacher may be. . . . How often do answers seem to be framed to fit the well-known view of the professor?

With the dawn of the twentieth century, America was in transition from an agrarian culture to a more urban, industrialized, and bureaucratic society. Oberlin's one-time religious zeal was rechanneled into the advancement of knowledge, a new intellectual sophistication, and a broadened involvement in social issues. At the turn of the century, Oberlin began to acquire a substantial body of art. The Allen Museum, named for the college's first benefactor in the arts, Dr. Dudley Allen, opened in 1917. It was the first college museum west of the Allegheny Mountains. The museum's collection includes artifacts from ancient Greece, Rome, and Persia, as well as works by major French artists—Courbet (*Castle of Chillon, Evening*) and Monet (*Wisteria and Garden of the Princess, Louvre, 1867*).

In the 1960s and 1970s, the school pioneered new services to meet the needs of minority and international students. These programs were quickly followed by the establishment of interdisciplinary majors in African-American, Judaic, Near Eastern, women's, and environmental studies. In another news-making move, Oberlin College, in 1970, opened one of the nation's first coeducational dormitories, earning itself a cover story in *Life* magazine.

Among the more noted Oberlin alumni today are television producer James Burrows ("Cheers" and "Taxi"), public interest lawyer Amy Gittler, author and screenwriter William Goldman ("All the President's Men"), civil rights activist Vernon Jones, pop artist Liz Phair,

award-winning columnist Carl Rowan, and conductor Robert Spano. The roster also includes John Langalibalele Dube, the first president of the African National Congress; Donald Henderson, head of the World Health Organization's successful program to wipe out smallpox worldwide; Nancy Hays Teeters, the first woman to serve on the Federal Reserve Board; John Vinocur, executive editor of *The International Herald Tribune*; and Sylvia Hill Williams, director of the Smithsonian Institution's Museum of African Art.

Additionally, there are three Nobel Prize winners among Oberlin graduates: Robert Millikan, who won the prize in physics in 1923 for his work on electrical charges and photoelectric effects; Roger Sperry, winner in medicine or physiology in 1981 for research on the brain; and Stanley Cohen, who shared the 1986 prize in medicine or physiology for the discovery and characterization of proteins that promote and help regulate cell growth.

Oberlin College today occupies 440 acres of land in the central business district of the town of Oberlin. The campus includes 20 academic buildings and 28 residence halls. The structures display a variety of styles, some reflecting the work of such noted architects as Cass Gilbert and Minoru Yamasaki. The oldest building on campus is Peters Hall, a fortress-like sandstone structure dating back to the 1880s and designed by two Akron, Ohio, architects who specialized in courthouses and prisons. The Gothic building was financed by Captain Alva Bradley, a Cleveland steamship owner, and Richard Peters, an Oberlin alumnus who went on to become a timber magnate in Michigan. The building's most impressive feature, a spacious, central court became a popular gathering place for bobby-sox dances in the 1950s and anti-war rallies in the 1960s. Periodic efforts by college planners to tear down the outdated and forbidding structure have been resisted by defenders of Peters Hall's historic and sentimental value.

Oberlin's Carnegie Library, which opened in 1908, came about largely through a case of fraud. Just when the school trustees were desperately seeking funds for a much-needed library, con-woman Chessie Chadwick duped a local bank out of \$350,000 by claiming to be the illegitimate daughter of industrial giant Andrew Carnegie. Her fraud was exposed, and she was sentenced to ten years in prison. When Carnegie heard about the case, he generously stepped in to help the students who had lost their savings at the bank. Oberlin president Henry Churchill King went to New York to thank personally the industrialist to whom he mentioned the need for a library. King came home with the funds. Today, Oberlin's library of more than 1 million volumes has been moved to larger quarters and Carnegie Library now houses the admissions office.

Among Oberlin's newer buildings, Hall Auditorium opened in 1953 was labeled as "the most controversial building in Ohio," by *The Cleveland Plain Dealer*. Cass Gilbert had been the original designer, but the stock mar-

ket crash of 1929 put a damper on his elaborate, costly plans. After a succession of architects and lengthy delays, the auditorium was finally completed, but it seated only 500 instead of the originally planned 4,000. Its curving limestone walls and white marble facade are beautiful in the eyes of some beholders but have been likened to a beached whale by others. Another controversial structure is that of Oberlin's Conservatory of Music, designed by Minoru Yamasaki and opened in the mid-1960s. The building's glistening quartz facades blend in with nothing else on campus.

At the heart of the campus is Tappan Square, a pleasant, tree-lined park, which carries the name of Oberlin's abolitionist benefactors. Most of the college buildings once lining the square have been razed according to the will of millionaire alumnus Charles Martin Hall, who favored open park space. Hall earned his fortune by discovering an economical method to extract aluminum from its ore, making the metallic element a common household item. The only structure left on the square is the Memorial Arch, built in 1903, to commemorate the Oberlin missionaries killed in China's Boxer Rebellion. Financed by the American Board of Foreign Missions, the neo-classical structure is designed as a triumphal arch of limestone embedded with polished red granite

panels and discs. To many Oberlin students and graduates, Memorial Arch symbolizes the school's moral spirit, perhaps best summed up by Professor Walter Horton in 1961:

If Oberlin should ever cease to produce graduates willing to go out on a limb . . . for new and risky causes on which the state of the world hangs balance, then it would no longer be Oberlin.

**Further Reading:** John Barnard's *From Evangelicalism to Progressivism at Oberlin College, 1866–1917* (Columbus: Ohio State University Press, 1969) provides a good review of the school's changing philosophies but is short on facts and contains little documentation. The same may be said for *Father Shipherd's Magna Charta: A Century of Coeducation in Oberlin College*, by Frances Juliette Hosford (Boston: Marshall Jones, 1937), regarding its review of women's progress at the school. *Oberlin Architecture, College and Town: A Guide to Its Social History* by Geoffrey Blodgett (Oberlin, Ohio: Oberlin College, 1985) offers brief, historic background on individual buildings, with photos.

—Pam Hollister

# OHIO STATE UNIVERSITY (Columbus, Ohio, U.S.A.)

<b>Location:</b>	Columbus, the capital of Ohio and its largest city; regional campuses are located in Lima, Mansfield, Marion, and Newark.
<b>Description:</b>	A comprehensive public university, enrolling approximately 50,000 students, that was established as a coeducational land grant school.
<b>Information:</b>	Admissions Office The Ohio State University Third Floor Lincoln Tower 1800 Cannon Drive Columbus, OH 43210-1200 U.S.A. (614) 292-3980
<b>Visiting:</b>	The Admissions Office offers two-hour tours on weekdays, as well as self-guided walks of the campus. The Office of Visitor Relations provides an alternate look at OSU with the tour "Tucked Away Treasures"; call (614) 292-0418 to make a reservation.

On April 18, 1870, the Ohio legislature passed the Cannon Act, authorizing the state's counties to raise money in order to secure potential sites for the Ohio Agricultural and Mechanical College. The creation of such an institution had been made possible by the 1862 Morrill Act of the United States Congress, which granted the state land scrip for 633,000 acres; the proceeds were to endow a system of higher education. Four counties actively sought to provide the site for the proposed college: Champaign, Clark, Franklin, and Montgomery. Franklin County was selected by the school's board of trustees, even though its support bid was lower than that of Montgomery County. The specific location chosen for the college was the 300-acre Neil farm north of Columbus, on what is today known as High Street. Legend has it that the decision to choose the Neil farm site was based on the presence of a good spring, water being regarded as a precious commodity.

Debate over the scope of the school's curriculum delayed its opening until September 17, 1873. The trustees were divided in opinion as to whether the school's focus should be vocational, as indicated by its name, or if it should offer a comprehensive course of study as was suggested by the Morrill Act. When the board was called on to vote on the matter, the comprehensive approach was

confirmed by the narrow margin of eight to seven. Therefore, when the school began instruction it offered courses in agriculture and mechanic arts as well as in chemistry, geology, mining, metallurgy, mathematics, physics, English, literature, modern and ancient languages, and political economy. A class of 25 students, including two women, was enrolled that fall.

The first president of the fledgling institution was Edward Orton, who had come to Ohio to take part in a geological survey of the state. He also served as a professor at Antioch College and, for a short time, as its president. He left that post to take the helm of the Ohio Agricultural and Mechanical College, at a salary of \$3,500. Orton was faced with a number of challenges, beginning with the fact that the college building was incomplete when classes commenced. However, his concern that the school would be unable to accommodate the number of incoming students was mitigated by the panic of 1873. As many as 80 students had been anticipated, but by year's end only 50 students were enrolled.

The first classes were held in a building lacking interior doors, part of its roof, and a floor in the chapel. Although a contract for the building had been signed two years earlier, requiring completion by November 1872, the college was unable to enforce these terms. A description by the architect indicates the type of facility the trustees had hoped to provide: "The Agricultural and Mechanical College of Ohio is designed, when complete, to be a three-story building, besides the basement and attic, and is to be of brick, with stone dressings above the basement story." The building would contain recitation rooms, professors' offices, two amphitheatres, and work rooms. In its unfinished state, the building was also to be pressed into service as a dormitory, housing half of the faculty and several students.

When the school began its second year, University Hall was finished and nine departments of instruction were in operation. Orton's attention was now focused on the heavy teaching load, the need to improve the library's collection and the geological museum, and the misleading effect of the school's name. This last item was addressed in 1878, when the school graduated its first class; the school was renamed the Ohio State University (OSU). The law providing for the name change also reorganized the board of trustees into a body of seven, and limited the president's salary to \$3,000 and that of professors to \$2,500.

At the same time, the curriculum was enlarged to include mine engineering and military tactics; military drill was also introduced as an elective, but it became compulsory in 1880. In 1879 the university offered its





*Ohio State University*

first free lectures in farming, thus launching the first extension service at OSU.

In its early years, OSU battled antagonism on several fronts. One faction consisted of other colleges in the area, which had hoped to share in land grant funds; they resented the increasing state aid the new college received. Some detractors argued that not enough attention was being paid to teaching farmers and mechanics, that too much emphasis was placed on other interests. Another criticism was that the school was a godless institution. The question of compulsory daily chapel attendance would contribute to the downfall of President Walter Q. Scott and cause problems for his successor, William H. Scott, each of whom served just two years: Walter Q. Scott from 1881 to 1883 and Walter H. Scott from 1883 to 1885. Walter Q. Scott was not renewed as president after he failed to enforce the university's chapel attendance policy; at the same time, he was labeled a communist for his criticism of land distribution in a capitalist society. In this hostile atmosphere, William H. Scott was pressed to assert the Christian, but non-denominational, status of the university. Required chapel attendance would be closely monitored during his tenure, although the policy was eliminated soon thereafter, in 1900.

A potentially controversial subject, the enrollment of women, generated little comment or activity on campus. The institution was coeducational from the outset, but men comprised most of the student body, and the school provided no special courses or facilities for women. Therefore, housing and meal arrangements for women were haphazard. In 1882 female students presented a petition asking for a "boarding hall." President Walter Q. Scott heartily supported their cause, but years passed and no action was taken. Likewise, the school was ten years old before female faculty members were hired. Women continued to enroll despite such inequities, and in 1886 Annie Ware Sabine became the first OSU student to be awarded an M.A. degree.

The university experienced great financial difficulties during its early years. While Ohio was one of the wealthiest and most populous states in the union, the general assembly failed to accept responsibility for the school's upkeep. One reason for such tightfistedness was active opposition to the school resulting from the Panic of 1873. Finally, in 1878, the legislature appropriated almost \$16,000 for the school. This award was to fund the purchase of livestock and a solar compass, the development of a mechanical laboratory, and the construction of a dam on the Olentangy River. From this time forward, the legislature considered the school's needs on an item-by-item basis, giving as little as \$1,350 in 1881, and as much as \$15,500 in 1885.

In this improved yet precarious position, OSU saw marked growth. In 1891, student enrollment exceeded 500 for the first time. By then, football had been established as an organized sport, and the trustees had agreed

to provide an athletic field and to start a school of law. A full electrical engineering course had also been added to the curriculum. These developments served to increase concerns regarding financial security and motivated the school to push for a one-twentieth mill levy for its support. Originally proposed in 1883 by William H. Scott, the levy came to represent the hope of continued growth.

The university was in desperate need of new buildings: the chapel was too small, the library was overcrowded, and several departments were lodged in cramped quarters. In March 1891, the legislature passed the Hysell Act providing for the levy the trustees had sought for so long. With this assurance, plans for two new buildings were commissioned, with building contracts awarded in October 1891 for a manual training (carpentry and woodworking) facility and a building to house the geological museum and library.

Progress of another kind was evidenced in 1896, when OSU ended a preparatory school program it had sustained since its inception. The program had served a large number of students who had attended country schools and were less prepared to enter the university than high school graduates. The trustees now felt that schools in the state had improved to the point that a preparatory school was no longer needed to provide students with an adequate background for college.

James Hulme Canfield assumed the presidency of the university in 1895 and soon saw its fortunes improve. The state legislature authorized the trustees to issue additional certificates of indebtedness for new buildings and improvements up to \$300,000, to be repaid with funds provided by an increased levy. During Canfield's tenure, Townshend Hall was built to house the College of Agriculture and Domestic Science, the gymnasium and armory opened, and the number of female students rose markedly. With this in mind, Canfield urged the creation of a women's dormitory and the addition of restrooms for women in the older buildings. The dormitory did not become a reality until 1909.

Dr. Canfield's administration proved to be a short one, however, due to conflicts with some of the faculty and trustees; he resigned and was replaced by William Oxley Thompson, who served from 1899 to 1925; during his term as president, OSU saw great increases in enrollment, facilities, and revenues. In the academic year 1905-06 student enrollment reached a new high of more than 2,000. That same year the legislature passed the Lybarger Act, which distinguished the Ohio State University from other universities and gave it permanent priority as a technical and graduate school.

In 1907 the college of education was created; it was designed to admit students with two years of college work to prepare them as high school teachers and to provide training for school administrators. By the end of the twentieth century, education would become the most popular of the nearly 200 majors offered by OSU. The year 1907 was also marked by financial gains from state and federal

sources: the Ohio legislature removed the cap on faculty salaries and granted \$750,000 for special projects, while the federal government provided increased funding to \$50,000 per year, by means of the second Morrill Act of 1890.

Thus the school saw continued growth, and by its 50th anniversary, in 1920, it could claim an enrollment of over 8,000 and an annual income of more than \$1 million. The Ohio State University was now part of a college athletic association, with a director of athletics who served as head football coach. The university's newspaper, *The Lantern*, became a daily produced in the school's own print shop, under the aegis of the new college of commerce and journalism. A graduate school and the position of dean of women had been established. Perhaps most importantly, the Starling-Ohio Medical College had joined the Ohio State University as its college of medicine.

The school year 1921–22 included a number of significant changes at the university. It adopted a four quarter plan of operation rather than three semesters, and a point-hour ratio system was instituted to raise the requirements for graduation. The point system made it possible to weed out students who performed poorly, even though they officially were passing, and to award a degree “with distinction” to superior scholars. During the same period, a university news bureau was created to handle all publicity for the school. The need for such a department was confirmed by the public interest created the following fall by the dedication of the university's new athletic stadium, the first and largest horseshoe-shaped, double-deck stadium in the United States.

The Great Depression would curtail further improvements. The number of courses offered was decreased, faculty salaries were cut, and the size of the teaching staff was reduced. As hard times continued, further belt-tightening became necessary; the operating budget was again reduced and salaries were cut again and still again. In 1938 the Office of Student Aid was established to coordinate support for students. To help offset the reduction in state and federal appropriations, the University Development Fund was organized—a program designed to encourage gifts to the school by alumni and others. In spite of the Depression, a number of badly needed buildings were erected using Public Works Administration funds. They included dormitories for men and women, an addition to the journalism building, and a new faculty club.

The threat of war soon created new concerns on campus; six months before the bombing of Pearl Harbor, on December 7, 1941, some 3,000 students had registered for Selective Service. Special physical education classes were formed for those awaiting induction; in anticipation of a greater need for doctors, the freshman medical class was expanded. After the U.S. declarations of war, the university made further adjustments to wartime conditions. Courses were accelerated so that a year's work could be accomplished in nine months, and evening courses were instituted to train workers for vital industries. Research

facilities were made available for defense use, including secret work on the manufacture of liquid gases related to the atomic bomb project.

Near the end of the war, enrollment fell to its lowest point in 20 years. A trickle of returning servicemen, however, foreshadowed the flood of GIs that would engulf the OSU campus during postwar years. In 1945 a trailer camp was erected to provide housing for the thousands of veterans who would seek an education under the GI Bill. Classes were scheduled early and late to accommodate these new students. Of the 18,000 students and former students who had served in the armed forces during World War II, 691 had been killed.

When OSU marked its 75th anniversary in 1948, enrollment began to level off—after reaching more than 25,000. With the war over, the university was now able to respond to enrollment figures with a comprehensive plan for physical expansion. A medical center and music building would be the first of 15 new major buildings. Regional campuses were created to extend educational opportunities to other parts of the state: Marion and Newark in 1957; Mansfield in 1958; Lima in 1960; Lakewood in 1962; and Dayton (with Miami University) in 1964. Lakewood was subsequently incorporated into Cleveland State University and Dayton was reorganized as a separate school, Wright State.

In 1971, University Hall, the first building on OSU's campus, was razed to be replaced by a replica. It stands among four other historic buildings: Enarson Hall (1910), Hayes Hall (1893), Ohio Stadium (1922), and Orton Hall (1893). These four structures are on the National Register of Historic Places. The bustling, urban campus that now surrounds them is a vital part of modern Columbus. The university's 1,600 acres encompass art galleries, museums, gardens, and Mirror Lake, as well as the university medical center, the Arthur G. James Cancer Hospital and Research Institute, the university extension service, and an airport.

The Ohio State University has produced many graduates who have distinguished themselves in politics, the arts, and sports. Alumni include former U.S. senator Howard Metzenbaum; playwright Jerome Lawrence; author and cartoonist James Thurber; golfer Jack Nicklaus; Olympic champion Jesse Owens. Two Nobel laureates have been OSU graduates: Paul Flory, who won the Nobel Prize in chemistry in 1974 and William Fowler, who shared the Nobel Prize for physics in 1983.

**Further Reading:** A detailed record of the university's development is provided by James E. Pollard's *History of The Ohio State University: The Story of Its First Seventy-five Years, 1873–1948* (Columbus: Ohio State University Press, 1952). Additional information can also be found in volume 1 of *History of The Ohio State University* by Alexis Cope, edited by Thomas C. Mendenhall (Columbus: Ohio State University Press, 1920).



# OREGON STATE UNIVERSITY (Corvallis, Oregon, U.S.A.)

**Location:** Corvallis, Oregon, 85 miles south of Portland.

**Description:** A public, state-assisted university enrolling approximately 14,500 students in undergraduate, graduate, and professional schools.

**Information:** Office of Admission and Orientation  
Administrative Services Building  
Room B-104  
Corvallis, OR 97331-2107  
U.S.A.  
(503) 737-4411

**Visiting:** Guided tours of the main campus begin at the Administration Building, Room A-150. Tours are available Monday through Friday from 8:00 A.M. to 4:00 P.M. year-round. For more information, call the phone number above.

Although it has been recognized officially as Oregon State University for less than 25 years, this public institution has persevered for well over a century. Founded on January 20, 1858, and chartered on October 27, 1868, as Corvallis College, the Oregon institution withstood 14 name changes and was sold twice before becoming the expansive 400-acre Oregon State University on March 6, 1961.

The Oregon institution had a difficult time getting started. In 1851 the Oregon territorial legislature passed an act ordering that a territorial university be "located and established at Marysville." During the same year Marysville changed its name to Corvallis, meaning "heart of the valley." Building materials were assembled on the selected site where Extension Hall now stands. In 1853 the territorial legislature named three commissioners to select the site in Marysville and erect the university. However, before construction of the new institution began, the legislature of 1855 changed the location of the university and ordered the building materials sold. Corvallis had lost its first bid at higher education.

A year after losing the promise of an institution, a community academy was established in Corvallis. Finally, on January 20, 1858, the school was commissioned as Corvallis College. Incorporated by six local citizens, it had no religious affiliation. For seven years primary and preparatory instruction were coeducational. Among its early teachers was John Wesley Johnson, who

would later become the first president of the University of Oregon at Eugene.

Corvallis College's sole building and land was first sold in 1860 at a sheriff's auction to satisfy a mechanic's lien. It was sold again a year later to a Corvallis community board of trustees, on which each trustee was a member of the Methodist Episcopal Church, South. At the time, the college was only partly state-supported.

The church's Reverend William A. Finley, A.M., D.D. became the first president of Corvallis College in October 1865 and served until May 4, 1872. At the time, the college was merely a frame building on Fifth Street between Madison and Monroe. In fact, Finley worked in the college's only building. However, toward the end of Finley's term, in 1871, the Corvallis College Board of Trustees purchased a 35-acre farm on April 17. The land would be known 17 years later as the experimental farm, and now as Lower Campus.

In 1867 four students became the first class of collegiate standing to enroll at Corvallis College. In 1870, each Oregon state senator appointed one student older than 16 years of age to be enrolled for two years at the college. Each academic quarter the secretary of the state drew his warrant upon the state treasurer in favor of the college for \$11.25 for each student attending.

The new agricultural curriculum began with 25 students whose tuition was paid by the state. Also in 1870, the first class—one woman and two men—graduated with bachelor of science (B.S.) degrees. They were the first degrees conferred in the far west by a state-assisted college or university. The following year the first bachelor of arts (A.B.) degree was obtained. In 1876 the first master of arts degree was conferred. The first professional degree, a master of engineering, was offered 31 years later. The first Ph.D. degrees—three in science and one in agriculture—were offered in 1935 during the school's 65th commencement. Graduate degrees would be offered in 1988 from the College of Liberal Arts along with the first masters degree in scientific and technical communication, and masters/doctoral degrees in economics. During Finley's term, course offerings included Greek, Latin, and moral philosophy. Freshmen learned by reading the works of Latin authors such as Sallust, Ovid, and Vergil, and Greeks such as Xenophon, Herodotus, and Homer. In addition to serving as the first president of Corvallis College, Finley taught Greek and Latin. After serving for seven years as president, Finley resigned in 1872 and moved to California, after much pleading from his wife, who found the rainy winters in the Willamette Valley hard to tolerate.



*Oregon State University*

Although full state support of the college began during Finley's term, on October 27, 1868, Corvallis College remained in the control of the Methodist Episcopal Church, South. The legislative assembly had temporarily designated Corvallis College the agricultural college of the state of Oregon and began making appropriations to maintain the institution. The institution became Oregon's first—and oldest—state-assisted institution of higher education. Its designation as an agricultural college was made permanent in 1870.

Finley's successor, Virginian Benjamin L. Arnold saw his cause as "the need for balance between education and training." Arnold sought to find the true meaning of an agricultural college for many years, and wanted to educate beyond the realm of farming. With limited financial and faculty support, and with Arnold and three teachers comprising the entire faculty, the president faced major obstacles. At one time Arnold headed the department of moral science; he also taught English and may well have taught physics and chemistry—all for an annual salary of \$1,500.

When the state of Oregon assumed responsibility for Corvallis College on February 11, 1885, the Methodist Episcopal Church lost its control. In turn, the college's name was changed to Oregon Agricultural College (OAC). Three years after the name change, OAC was remodeled and fitted with a new tower. Money was tight, but, nonetheless, in 1888 the college prepared to move to a new campus. Near this time the new college seal was adopted by the State Agricultural College of Oregon Board of Regents on June 21, 1888. The seal is nearly identical to that of the state of Oregon, with the exception that it uses a wreath of Oregon holly rather than the 33 stars used in the state's seal. The role of agriculture is still recognized in the institution's official seal: a sheaf of wheat, a plow, and a pickax represent Oregon's mining and agricultural resources. The seal also features a British man-of-war heading west on the Pacific Ocean, signifying the departure of British influence in the region; an American merchant steamer symbolizes the rise of American power and commerce. The seal also shows a covered emigrant wagon being pulled



westward by two oxen and the local topography with its mountains, forest, and seashore.

Now that OAC was fully state supported, the legislature accepted the provisions of the first Morrill Act, which President Lincoln had signed on July 2, 1862. This act provided grants of land to be used by the states for the sole purpose of establishing publicly controlled colleges. The bill gave each state 30,000 acres of federally owned land for each representative in the Congress of the United States to be used to finance educational programs; Oregon received 90,000 acres. The Congress defined the purpose of the land grant institutions in these words: "The leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

Therefore, designated and adopted as an agriculture college, the OAC began instructing students in the arts and sciences. The Morrill Act's recommendations for agriculture college curriculum included mathematics, English, natural science, languages, military exercises, agriculture, and moral philosophy. But the OAC was so badly in debt that it would be nearly ten years before that curriculum was added. In fact, teachers were often unpaid, and many were forced to find other work to support themselves. In his first report to the governor of Oregon, Arnold describes the problems he faced:

When I took charge of this institution in the fall of 1872 I was met by three very serious embarrassments. First, the institution was in debt in every department. This, I may remark, has been removed. In the second place, there was no money and scarcely any resources. In the third place, there was no chemical apparatus; there was ■ tolerably good apparatus for physics. Of course all was paralyzed. Nothing could be done till an appropriation was made. An appropriation of \$5,000 a year was made on the 15th of October, or rather the bill appropriating that amount was approved at the date.

Arnold divided the college into two departments, literary and scientific, and laid the foundation for OSU's curriculum. Each college had several schools. The literary department was composed of ancient and modern languages, history, and literature. The scientific department was composed of mathematics, engineering, practical mechanics and technology, physical science, and moral science. Arnold, however, would have to wait for state funding to provide more staff. Arnold realized the importance of scientific agriculture to the Oregon farmers, who at the time were prospering from abundant crops that couldn't last forever. One of Arnold's colleagues, English lawyer Wallis Nash (a neighbor and friend of Charles Darwin), had

come to Oregon in 1877 on behalf of a group of English investors. What Nash found in Oregon were farmers reaping the benefits of fertile land but doing nothing to ensure that prosperity. Farmers were paying only \$5 an acre for good farmland and not having to worry about droughts, disease, or infestation. There were no threats of floods or storms and the winters promised to be mild. Farmers were building homes from fir lumber at \$10 per 1,000 feet. Nash understood the magnitude of Oregon's prosperity when he learned that local travelers never packed a lunch. Instead, they would stop at ■ farmhouse where they would be offered a full meal consisting of hot meat, potatoes, cooked fruit, fresh bread, cucumber pickles, and jams and jellies. He wrote, "Where idleness and slovenliness were evident, even here the richness of the soil protected the settler from the want he seemed so thoroughly to deserve."

Nash was amazed at the difference between Oregon and English farmers. Hog parts that were eaten in Europe were fed to the dogs in Oregon. Deer was so abundant that only the hind quarters were consumed. Instead of raising cows for dairying, the farmers were feeding whole milk to the calves and importing butter and cheese. Farmers were planting crop after crop of wheat without rotating crops. When the soil was no longer fertile, the land was abandoned. If the Oregonians continued this way, Nash knew that the abundance could not last forever.

Arnold saw this future problem well, and in 1884 he proposed the establishment of an experiment station, similar to those in Europe at the time. He succeeded in his second attempt at the passage of a bill, which later became known as the Hatch Act of 1887. The Hatch Act established agricultural experiment stations in land grant institutions, such as OAC. Each experiment station received \$15,000 annually in support from federal funds, boosting OAC's total operating budget by over 50 percent. The Hatch Act's goal was "to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The OAC staff built its station on the 35 acres of farmland given by the citizens of Benton County in 1871. In 1901 the legislature funded OAC with an additional \$10,000 for the establishment of ■ branch station located in Union, an eastern Oregon town where the land was high and dry, unlike that of the Willamette Valley. Since there were many other Oregon regions which vary in climate and topography, 15 branch stations have been erected to study them. The Hatch Act, therefore, ensured Oregon's abundant crops through educating farmers. Bulletins were published, with most of them focused on helping farmers solve problems from soil to weed control. Later, when mailed bulletins were not enough to solve problems of the farmer, county agents and cooperative extensions took over.

In addition to offering an agricultural curriculum, Arnold decided that one of the college's missions in the 1880s should be special studies for women who were to become homemakers. Margaret Comstock Snell was cho-



sen as professor of household economy and hygiene for the fall term of 1889. Although she believed that skills such as sewing and cooking were important, she taught that they were only part of a well-rounded education. She wrote in a 1902 report:

The senior class work in aesthetics is of the highest mental and moral value. Here the student is no longer left to "wander about in worlds not realized"; here she learns to know herself and something of her relation to the forms about her in the natural world, and in the world of art; here she learns to recognize all form in the universe as ideas of God—in the world of art, as man's ideas, seeking expression of himself to his fellow men.

Snell ran the first residence hall at OAC, Alpha Hall, and its kitchen. She reduced the per person cost of living in the girls' dormitory to under \$1 per week. Snell died in 1923, but the shade trees she planted remain around Seventh Street (the former Episcopal Church), around the current Arts Center, and near her own home and apartments on Jackson and Monroe streets.

By 1883 the college's department of agriculture was well-established. It was the first in the Pacific Northwest. By 1908, professional schools of commerce, agriculture, household economy, and engineering had been added. The college later added to its curriculum schools of forestry (1913), mines (1913), pharmacy (1917), education (1918), basic arts and sciences (1922), and health and physical education (1931). In 1932 the school of science was established; however the school of mines was eliminated. At the same time, the school of health and physical education was reduced to a division. Also, major work in business administration was discontinued, but later resumed when the college of business was established in 1943. The college of liberal arts was founded in 1959 as the school of humanities and social sciences. In the 1970s the college of oceanography, the college of health and physical education, and the college of veterinary medicine were established. In the following decade, all schools within OSU were redesignated as colleges. In 1991, the college of education merged with the college of home economics to become the college of home economics and education.

The institution's course offerings have been just as varied as its changes in name and ownership. Referring to the university's mass and variety of its work, Spanish philosopher Ortega y Gasset wrote that it is "a tropical underbrush of subject matters." Oregon State University's school of business or commerce is one of the first 12 established in the United States, and the first in the Pacific Northwest. When Dean John Andrew Bexell founded the school of commerce in 1908 there were four members of the faculty, including himself. When he retired from active deanship in 1931, the school had grown to include 40 faculty members and the student population had jumped from 105 to 1,000.

Since its inception as an agricultural school, OSU has struggled with its label. The requirements of the Morrill Act were broad and ambiguous. Arnold reported to the governor and the legislature twice on the difficulty of setting a curriculum for an agricultural college. As writer James Groshong said of the institution, "Lacking models, then, the agricultural college of Oregon had to construct an identity for itself." During all its years, the institution was establishing its identity. The sixth president of OAC, William Jasper Kerr, continued the school's quest for liberal studies. However, in 1909, the state created the State Board of Higher Curricula to ensure that OAC and the University of Oregon in Eugene, only 40 miles away, were not duplicating curricula. The board assigned engineering and commerce studies to OAC and liberal arts to the University of Oregon in Eugene. By 1932 the changes were completed, and OAC had changed its name to Oregon State College.

During the years 1907 to 1932, while Kerr was president, the institution undertook major building construction. The list of buildings included the Memorial Union, the armory, the men's gymnasium, the women's building, a home economics building, Graf Engineering Laboratory, Dryden Poultry-Veterinary Hall, Covell Hall, and a building for the industrial arts. Finally, the William Jasper Kerr Library replaced the institution's first library, named after Ida Evangeline Kidder who had founded it. In fact, when Kerr came to OAC in 1907 he came to a 225-acre campus worth \$229,000. When he left in 1932 the campus had expanded to 555 acres worth \$7.5 million.

In 1961, when OSC became Oregon State University, developments occurred which led the institution back to its original liberal arts background. Under its new president, James H. Jensen, the first degree in English—a liberal arts field—was awarded at OSU. Later, other degree programs in liberal arts followed: history, art, economics, speech, political science, Russian studies, French, German, psychology, music, and sociology. Today, OSU's academic focus continues in liberal arts and sciences. It offers undergraduate and graduate programs in 12 colleges and two schools. In addition to its aforementioned land grant, OSU is also a sea grant and space grant university. (These grants are analogous to land grants and offer federal funds for student fellowships and research.) As OSU celebrated its 128th anniversary in 1996, the institution saw its mission as one to "teach, conduct scholarship and serve its constituents into the 21st Century." The institution vows to continue to lead Oregon and Oregonians as the state's only land grant Carnegie Research I University. (There are approximately 80 U.S. universities in this category. The Carnegie Foundation bases its ratings on the amount of federal research funds an institution receives and the number of Ph.D.s it graduates.) Although the university has no official motto, it has announced its intention is to provide "excellence in advancing knowledge and its application to practical

problems, particularly those related to human resources, natural resources and the physical environment.” Oregon State University had returned to the lessons of Benjamin Arnold who said, “If on the one hand the curriculum be less extensive than that of an ordinary college there is a loss of dignity and respectability, and with it a loss of the best young men and women, precisely those most needful for the present and future prosperity of the college.”

**Further Reading:** James W. Groshong’s *The Making of a University, 1868–1968* (Corvallis: Oregon State University, 1968) was published by the university to commemorate its centennial. A complete listing of OSU buildings and a chronological history timeline may be found in the *Oregon State University Fact Book* (Corvallis: Office of Budgets and Planning, 1994).

—Marla Bosworth

# PHILIPPS UNIVERSITY OF MARBURG

## (Marburg an der Lahn, Germany)

- Location:** Marburg an der Lahn, a city of 75,000 in central Germany, about 60 miles (90 kilometers) north of Frankfurt am Main.
- Description:** A state-run university of about 17,000 students, Philipps-Universität encompasses buildings ancient and modern stretching from the riverbank to the castle.
- Information:** Akademisches Auslandsamt der Philipps-Universität  
(Foreign Students' Office)  
Biegenstrasse 12  
35032 Marburg  
Germany  
(0642) 28-1720  
Fax (6421) 28-2500

Marburg an der Lahn (on the Lahn River) was once a great religious center of Europe. Its castle and the St. Elizabeth Church both date from the thirteenth century; the Elisabethkirche, oldest Gothic cathedral in Germany, contains relics of St. Elizabeth of Hungary and is the burial site for pre-Nazi leader Field-Marshal von Hindenburg.

With its hilly, twisted streets, Marburg features long flights of steps from the riverbank to the castle, portions of which are still used by Philipps University. Halfway up the hill, the old market square with its ancient courthouse and half-timbered houses is a glimpse into antiquity.

The climb is so steep that a public elevator whisks riders from the lower city to the upper section in a fraction of the time students of former generations spent puffing up the seemingly endless steps—quicker, but without the charming view over tiled roofs and the newer campus to the hills beyond.

The University of Marburg is not as well known to most foreigners as Heidelberg. The university was founded in 1527 by Landgrave Philipp the Magnanimous, at age 23 a nobleman in the German state of Hesse, and a political leader of the Protestant Reformation. The institution started with faculties of theology, law, medicine, and philosophy; there were 84 students taught by 11 professors.

Marburg was the first Protestant university in Europe and was soon drawn into conflict between reformers and Lutheran theologians. In the fall of 1529 Martin Luther, the Swiss reformer Ulrich Zwingli, and various followers met at the castle in what became known as the "Colloquy

of Marburg," a high point in Hessian history although the talks were inconclusive, since their topic of disagreement was the transubstantiation at Eucharist, a subject that still arouses heated discussion half a millennium later.

For its first three centuries the university floundered, ranging from 30 students to 300. In one way its small size was probably a boon: plague epidemics in the sixteenth and seventeenth centuries several times forced the temporary removal of classes out of town and out of danger. Its small size did not exempt the institution from scandal; many times over the years, the local folks despaired over rampaging students, professorial shortcomings, and similar difficulties. As early as 1610, the populace was complaining about rowdy student behavior, necessitating an edict condemning shooting in the streets, window-breaking, and the like, and difficulties continued for hundreds of years after that. In the early nineteenth century social life ranged from wild drinking contests and duels to teas and dances with the local gentry. The town and the university's strengths ebbed and flowed for centuries, dependent on the political situation until the unification of Germany. After its first centennial, for example, the institution was joined with the university at the nearby city of Giessen for a time. Marburg achieved true stability only when the states of Hesse and Prussia were joined politically in the mid-nineteenth century.

The first major period of the University of Marburg's influence came when Friedrich Karl von Savigny arrived as a law student in 1797. He received his doctorate in 1800 and began to lecture, gaining great fame and respect as a jurist. The university's law school building is named after him. The famed Romantic writer Clemens Brentano came to town to visit Savigny, stayed until 1804, and the university became a "Paradise of Romanticism." One of Brentano's sisters, Kunigunde, married Savigny and another, poet/writer Bettina, visited often and wrote novels with reminiscences of Marburg. To that circle in 1802 came Jakob Grimm, the founder of German philology and author of dictionaries. His brother Wilhelm (collector of folk- and fairy-tales) followed in 1803. By 1808 they had all moved on to Paris and elsewhere, but their fame lives on in memorials as well as a Brothers Grimm museum.

The next period of renown for Philipps University came toward the end of the nineteenth century. Hermann Cohen arrived in Marburg in 1873 and Paul Natorp in 1880; together they founded the Marburg School of Philosophy, a branch of neo-Kantian theory and one of the brightest jewels in the university's crown. They carried Kantianism a step farther in an attempt to meld it with





*Philipps University of Marburg*

Marxism, and their fame drew students to the institution. Among the latter was Boris Pasternak.

Pasternak studied at the university for the summer of 1912; although his tenure was relatively short, it was a time of epiphany for the young man, who arrived at Marburg planning to be a philosopher and left certain he would instead pursue poetry. The cause of his change of direction came from an abortive affair of the heart; when a visiting friend from Moscow turned down his offer of marriage, Pasternak left Marburg in despair. His few weeks in the old city were memorialized in his autobiography and poems. For example, an excerpt from "Marburg":

Here lived Martin Luther. The Brothers Grimm,  
there. And all things remember and reach out to  
them: The sharp-taloned roofs. The gravestones.  
The trees. And each is alive. And each is an emblem.

T.S. Eliot planned to spend the summer of 1914 in Marburg on a fellowship from Harvard, but his arrival

was ill-timed. He was only in residence for a couple of weeks before the outbreak of the war, and he left precipitously, landing instead at Oxford.

A third high point in the university's history came in the early twentieth century with theological scholars Rudolf Bultmann (student from 1907 to 1910 and later professor); Rudolf Otto from 1917, one of the best-known modern theologians; Old Testament scholar Karl Budde for the first quarter of the century; and Paul Tillich, the Protestant theologian who spent about a year in Marburg after World War I. Existentialist philosopher Martin Heidegger was professor of philosophy from 1923 to 1928; he in turn especially influenced Spanish philosopher and sociologist Jose Ortega y Gasset, who was a student in Marburg in 1910 and was given an honorary degree in 1952.

Over the years scattered arts and humanities faculty and students brought recognition to the university. Heinrich Schütz, in Marburg in the early seventeenth century, was the most important sacred music master in Germany until Johann Sebastian Bach. Heinrich Stilling in the late eighteenth century was a professor of political science

and a friend of Goethe. Aldous Huxley lived in the city for two months in 1912 and used it as a setting for "Nuns at Luncheon." Erich Jaensch, also at Marburg for most of his career, was a famed psychologist who related personality to physiology.

From the very early days, many scientists have also owed a great deal to Marburg, whether as students or as researchers and professors. The first chair in chemistry in Europe was established at Marburg in 1609, with the post held by Professor Johann Hartmann.

The French physicist Denis Papin was at Marburg from 1688–95; there, in an attempt to stretch his meager coal supply, he invented the Papin pot, an early pressure cooker. He also theorized on steam-driven pistons, developed the centrifugal pump and attempted to navigate the wholly unsuitable Lahn River in a submarine in 1692.

In the next century Mikhail Vasilievich Lomonosov, the Russian chemist and writer, studied at Marburg. In Russia, he tried with a colleague to duplicate Benjamin Franklin's kite experiments—with disastrous results; he barely escaped with his life, and his friend did not survive. Lomonosov later founded Moscow University and it was his early interest in Marburg that helped lure Pasternak there two centuries later.

From 1839 to 1851, Robert Bunsen served as chemistry professor. He was a cofounder of spectroscopy and was responsible directly and indirectly for the discovery of several elements; still, he will be forever remembered by chemistry lab students as the developer of the Bunsen burner.

Theodore Zincke was professor of chemistry from 1875 to 1913 and in that time instructed not one but three Nobelists. Hans Fischer, researcher in natural pigments, was the 1930 chemistry winner. Otto Hahn, founder of the Atomic Age, won the Nobel Prize for chemistry in 1944. Karl Ziegler was awarded the chemistry prize in 1963 for his synthesis of polymers that formed a basis for plastics technology.

Emil von Behring was a turn-of-the-century professor of hygiene and world renowned for his investigations into blood serum therapy, especially against the dreaded killer diphtheria. In 1901 he received the first Nobel Prize for medicine ever awarded. Otto Schmiel in the early years of the twentieth century was well respected as an author of zoology and botany texts, and his contemporary Alfred Wegener was a famed geologist, Greenland explorer, and theorist of "continental drift."

Von Behring's Nobel Prize was the first associated with Philipps University, but it was far from the last. In addition to Zincke's students, Pasternak, and T.S. Eliot (the latter

two admittedly of brief tenure at the university), biochemical pioneer and professor of hygiene Albrecht Kossel won in medicine for 1910. Ferdinand Braun, student and professor in math from 1868 to 1880, physicist and inventor of the oscilloscope, shared the 1909 physics prize with Guglielmo Marconi. Otto Loewi won the 1936 Nobel for medicine and Albert Butenandt, who had studied at Marburg, the 1939 Nobel for chemistry.

Philipps University of Marburg is so entwined with Marburg that separating them today is unthinkable. "It's not just a city but a medieval fairy tale. . . . It is hard to imagine a place that looks as much like a painting as Marburg," wrote Pasternak after his 1912 sojourn at the university. Parts of the citywide campus have changed little, at least in outward appearance, since the earliest days. The university still uses portions of the castle for functions, and the formerly secularized Kugelkirche (Dome Church), which served as a lecture hall for theology students in the very early years, has long been back in use as a Catholic church. The Old University, near the Lahn in the lower part of the city, looks positively ancient, but it was built in the late 1800s in Gothic style.

The university's most striking growth has come since World War II, especially in the last four decades of the twentieth century. Major construction projects in the early 1960s and after have expanded the campus with a new student union, a dormitory village (including the first residence for disabled students in the country), general lecture buildings, and a second campus of science and clinical buildings along the banks of the Lahn.

Several museums recall the history of Marburg and its university. The castle itself houses a collection of Celtic archeological finds ranging from tapestries to suits of armor. Separately housed collections cover mineralogy, art and cultural history, and the library has more than a million volumes.

Women were first admitted as undergraduates in 1909 and to the faculty in 1930. Today Philipps University of Marburg is highly ranked internationally for both graduate (law and medicine) and undergraduate studies (biology, engineering, humanities, physical sciences, and social sciences). Youth from around the world mingle in Marburg. Exchange programs bring students from France, Russia, Sweden, England, Italy, Japan, Spain, Poland, India, and the United States.

—Jeanne Munn Bracken



# PRINCETON UNIVERSITY

## (Princeton, New Jersey, U.S.A.)

- Location:** A 600-acre campus in Princeton, New Jersey, a city of about 30,000 residents, located within a 50-mile radius of both New York City and Philadelphia.
- Description:** An independent, highly selective Ivy League university of 6,300 total graduate and undergraduate students. The school emphasizes undergraduate education, a role reinforced by the absence of professional schools of law or medicine. The graduate school, established in 1901, offers doctoral programs in arts, sciences, and engineering.
- Information:** Admission Office  
Princeton University  
Princeton, NJ 08544  
U.S.A.  
(609) 258-5397
- Visiting:** Tours of the campus led by student guides are available daily during the academic year and at limited times during summer and holidays. Reservations are necessary for large groups. For more information, write to the Orange Key Guide Service, Maclean House, Princeton, New Jersey 08544, or call (609) 258-3603.

Chartered in 1746, Princeton University became the training ground for U.S. presidents James Madison and Woodrow Wilson, statesmen such as Adlai Stevenson and John Foster Dulles, noted authors F. Scott Fitzgerald and Edmund Wilson, and it provided a laboratory for world-renowned scientists including Albert Einstein and J. Robert Oppenheimer. The school survived British bombardment and occupation during the American Revolution, years of factionalism within the Presbyterian Church, and a long-time reputation as a country club for the privileged scions of the rich, and emerged as a respected center for scholastic achievement, scientific research, and international leadership. Princeton is often called the "school of statesmen."

Princeton was the fourth college established in the British colonies of North America. The school was first located in Elizabeth, New Jersey, then in Newark, finally moving to Princeton in 1756. Chartered as the College of New Jersey and known as Princeton College for most of its first 150 years, the school was the nation's first learning institution to emerge from the Great Awakening, an

emotional religious fervor that spread through the colonies in the mid-1700s. For 50 years, the entire college was housed in a single structure, Nassau Hall, which still stands despite its bombardment during the American Revolution and two fires in later years.

Although its charter contained no reference to any religious denomination, Princeton's development was greatly influenced by its Presbyterian founders and by the Scottish evangelical John Witherspoon, who became president of the college in 1766. Witherspoon was an ardent supporter of American independence from Britain, and the school became a hotbed of revolutionary activity. At commencement ceremonies in 1770, students wore American homespun rather than British-made fabric, attracting considerable publicity. Following the Boston Tea Party, Princeton students gathered to burn tea over their own bonfire. Witherspoon, in fact, was one of the signers of the Declaration of Independence (the only minister on the list). Along with 30 other Princetonians, he also served in the Continental Congress. In 1777, George Washington led the forces that drove occupying British troops from Nassau Hall. Six years later, he returned to Princeton to be formally commended by the Continental Congress for his military leadership.

Among Princeton's early students were James Madison, Henry (Light Horse Harry) Lee, Charles Lee, and Luther Martin. Madison was later remembered as a quiet student who showed no hint of his presidential destiny, but his silence may have been attributable to ill health or his fear of public speaking. In any event, Witherspoon was so impressed that he tutored the young man in law and Hebrew. Additionally, Madison founded one of the first extracurricular clubs on campus, the Whig Society, which focused student attention on literature and debate.

A less illustrious graduate of Princeton was Aaron Burr Jr., son of the Reverend Aaron Burr Sr., the second president of Princeton and grandson of the dynamic theologian Jonathan Edwards, Princeton's third president. Young Burr arrived at the school at the age of 13 and came to be regarded as the most promising scholar of his era. He reportedly studied 18 hours a day and performed brilliantly at his commencement, giving an address titled "Building Castles in the Air." His political career reached a peak when he served as vice president to Thomas Jefferson, but it careened downhill when he killed Alexander Hamilton in a duel and later made an ill-fated attempt to carve out his own country in Louisiana and the southwest. The once-promising Princetonian was acquitted of charges of treason, but his reputation was in ruins.





*Princeton University*

Almost from its beginning, Princeton was a battleground between conflicting branches of Presbyterianism, a feud that led to the establishment of the Princeton Theological Seminary in 1812. This institution was to carry on the Calvinist tradition while Princeton College developed along more secular lines. Despite this action, religious conflicts continued to affect the school, centering chiefly on such issues as the interpretation of true Presbyterianism, revivals, and the school's position on slavery. By the mid-1800s, Princeton was under the presidency of John Maclean, an academic reactionary who believed that the school's prime mission was to defend religion. He prodded his faculty to prove that astrology and geology were compatible with literal interpretations of the Bible. With the end of the Civil War, however, Princeton's trustees sought ways to end the long-time religious conflicts and took a first step by seeking a new president.

The trustees chose a Scotsman in the Witherspoon tradition. The man they selected was James McCosh, who was to lead Princeton through one of its most formative eras. He arrived in 1866, at which time he found low teachers' salaries, campus buildings in disrepair, a curriculum woefully behind the times, and a school library that was open only one hour a week. He was dismayed to find the faculty exceptionally inbred, with more than 60 percent of its members holding degrees from either Princeton College or Princeton Seminary. He made first-rate teachers his top priority, stressing the importance of bringing vigor and excitement into the classroom. Upon hearing glowing reports of the academic credentials of individual teaching candidates, he would ask: "But, mon, is he *alive*?"

Among other renowned professors, McCosh brought in Columbia graduate William Milligan Sloane, the

school's first genuine historian, who later held the presidency of both the National Institute of Arts and Letters and the American Historical Association. Another of McCosh's faculty additions was Rutgers graduate Alexander Johnson, who helped modernize the school curriculum by introducing public interest and social welfare issues. The appointment of the famed orator George Lansing Raymond to the faculty laid the groundwork for future achievements in that art by Princeton graduates.

McCosh brought in additional notables to strengthen instruction in the sciences. Cyrus Fogg Brackett, a Bowdoin graduate, had written impressively on the subject of evolution and generated considerable student interest in new theories on heat, energy, and electromagnetism. Dartmouth graduate Charles Augustus Young brought advanced astronomy to Princeton, establishing an observatory and designing an automatic spectroscope that would be used throughout the world. In 1873, McCosh created the John C. Green School of Science; following in the tradition of rival schools Yale and Harvard, this brought science studies into the forefront of the curriculum. McCosh held that no student should graduate from Princeton without studying natural history, physics, chemistry, astronomy, and geology or psychology.

McCosh taught psychology and philosophy, and was later credited by many students for their intellectual awakening. He also fought vigorously to eliminate the vicious student societies and class rivalries that had long created trouble at the school. They were largely replaced by a new institution, the "eating clubs" that remain a Princeton tradition to this day. These clubs actually took root in the 1840s when student protests against refectory food became frequent and disruptive. To solve the problem, the school sent students to eat in boarding houses around the town. Then, in 1879, a group of students calling themselves the Ivy Club received permission to incorporate and build their own quarters. This trend-setting move was quickly followed by the establishment of other clubs, bearing the names Cottage, Tiger Inn, Colonial, Elm, and Cap and Gown.

Financed by student food fees and alumni contributions, the new clubs were housed in elegant Tudor and Georgian mansions with stately dining rooms, wood-paneled libraries, and billiard halls. Such an aristocratic atmosphere advanced the image of the privileged, pipe-smoking college student with whom the college became forever associated and who was immortalized in the writings of 1917 Princeton graduate F. Scott Fitzgerald. Initially, the clubs were highly selective, advancing the idea that some students were better born than others. By the early 1900s, however, there were enough clubs to include the majority of students.

While McCosh made considerable strides, similar advances were occurring at other universities. Despite its transformation, Princeton faced serious troubles, particularly during most of the 1880s. Enrollment was declining.

Student disorder was on the rise, a backlash created by the destruction of the secret societies. The student newspaper, *Princetonian*, boldly published negative references to unpopular professors. McCosh was particularly dismayed by reports that a group of students attending a football game in New York City had fallen in with prostitutes and missed church the next morning. At the end of 1883, a discouraged McCosh threatened to quit, but he agreed to stay when the trustees offered to appoint new executive officers to take charge of discipline and ease the president's burdens.

In 1884, McCosh, then 73 years old, visited schools in Columbus and Dayton, Ohio; Chicago; Omaha, Nebraska; St. Louis, Missouri; and Louisville and Lexington, Kentucky. He returned home with a new recognition of the need for additional liberal reforms in Princeton's curriculum. He established a program providing entrance examinations in midwestern cities to bring in students from outside the region. His efforts met with success: enrollment increased and, when McCosh retired in 1888, some 600 students were attending Princeton. Eight years later, in 1896, Princeton College celebrated its sesquicentennial anniversary by changing its name to Princeton University; this action symbolized the school's belief that it finally belonged among the nation's top learning institutions, thus fulfilling one of McCosh's most cherished dreams.

Meanwhile, the long-standing conflict between Presbyterian liberals and conservatives was coming to a head, fueled by what became known as the Briggs case. Charles Augustus Briggs, a graduate of the University of Virginia and a professor at Union Theological Seminary, was a leading spokesman for the liberal faction, denouncing the critical doctrine of biblical infallibility in a collaborative religious publication, *Presbyterian Quarterly and Princeton Review*. Opposing such views was Francis Landy Patton, a brilliant graduate of Princeton Theological Seminary, who already had earned a reputation for fighting heresy when he was appointed president of Princeton in the late 1880s. When the American Presbyterian churches arraigned Briggs on heresy charges, Patton was appointed as chair of the tribunal that heard the case. He secured Briggs' conviction.

Presbyterian liberals, however, would not accept defeat. At Princeton the liberal faction opposing Patton rallied around a young faculty member and future U.S. president named Woodrow Wilson. As a student at Princeton, Wilson had not distinguished himself with high grades, but he was a prodigious reader and held offices in the Whig Society, on the *Daily Princetonian*, and in the football and baseball associations. Wilson was an ardent admirer of the reform-minded McCosh, of whom he once said: "He found Princeton a quiet country college and lifted it to a conspicuous place among the most notable institutions of the country." As a faculty member, Wilson led the drive to get Princeton moving again, winning



valuable allies as aging trustees of the school were gradually replaced by other former students of McCosh. In 1897, Wilson headed the faculty committee that submitted a report to the trustees charging Patton with ineffective leadership and unprofessional administration. Two years later, another report to the trustees cited severe weaknesses in the curriculum and concluded: "The condition of scholarship among our students at the present time is one of demoralization." Money was collected from prominent alumni and trustees to purchase Patton's resignation and, in 1902, Woodrow Wilson was elected president of Princeton University setting the school permanently on a progressive course.

While Princeton may best be known for producing eminent statesmen, it would also become prominent in the realm of scientific research. The first step came in 1832 when noted physicist Joseph Henry joined the faculty. He was the first scientist to create an electromagnet, and, while at Princeton, he devised a magnetic relay from his office that signaled his wife to have his lunch ready. Later in that century, the ever-progressive McCosh established Princeton's School of Science and raised many eyebrows by defending Darwin's theory of evolution.

Early in the 1930s came the establishment, a few miles west of the campus, of the Institute for Advanced Study, the nation's greatest "think tank" at that time. While not officially connected with the university, the institute attracted some of the world's most eminent physicists to Princeton's campus. Albert Einstein had an office and workshop at the university and was known to roam empty classrooms scribbling equations on blackboards. A graduate student was assigned to follow him and copy the equations lest something of value be accidentally erased. Some of Einstein's mathematical formulas are actually preserved today in leaded windows in Jones Hall where, over a fireplace, Einstein's mysterious maxim is inscribed: "God is subtle, but He is not malicious." Later came such notables as John von Neumann, Eugene Wigner, Leo Szilard, Leopold Infeld, George Placzek, Leon Rosenfeld, and Niels Bohr.

Physicist (later Nobel laureate) Eugene Wigner did not stay long. He was later to describe Princeton as "an ivory tower [where] people did not have any normal thinking about the facts of life and so forth and they looked down upon me." The others fared better, becoming increasingly involved in the research concerning atomic fission. It was on a blackboard in Princeton's Fine Hall that Bohr drew for Rosenfeld his calculations about the critical role of Uranium 235 in the fission process. The research carried out at Princeton was to figure significantly in the making of the atomic bomb. Following World War II, the celebrated Robert Oppenheimer, "the father of the A-bomb," came to Princeton as director of the institute and remained there until 1966, one year before his death.

Affording Princeton further renown in the field of atomic research was astrophysicist Lyman Spitzer Jr.,

who inspired construction in the 1950s of Princeton's Plasma Physics Laboratory for the study of fusion-generated electricity. By 1982 Princeton had a \$300-million Tokamak Fusion Test Reactor and a \$135-million annual operating grant from the U.S. Department of Energy. "Tokamak" is the Russian acronym for toroidal magnetic chamber, which is a doughnut-shaped vacuum container designed to hold plasma within a twisting magnetic field. In December 1982, the Princeton reactor made history when it produced its first magnetically confined plasma.

As curricula and teaching philosophies underwent two-and-a-half centuries of change at Princeton, its campus grew from a single structure into one of the most stunning arrays of buildings and landscaping to be found at any university in the nation. The campus is known for its elegant Gothic and colonial architecture that is reminiscent of a medieval college. The oldest building, of course, is historic Nassau Hall, built in 1756, which houses administrative offices. Nassau also contains Charles Willson Peale's famous portrait of Washington at the Battle of Princeton and paintings of King George III, William III, the school's presidents, and U.S. presidents Madison and Wilson. On Cannon Green behind Nassau Hall are situated two cannons used in the American Revolution and the War of 1812.

Among other notable buildings is the beautiful medieval University Chapel, which opened in 1928, and replaced two earlier chapels, the second having been destroyed by fire. The current structure was modeled after King's College in Cambridge and has a chancel built of wood from England's Sherwood Forest. The chapel seats 2,000 on pews made from army surplus materials originally intended for gun carriages in the Civil War. There are more than 1,000 memorials in the chapel to the donors who funded its construction. Princeton's library system has some 5 million volumes housed in 22 special libraries, the main one being the Harvey S. Firestone Memorial Library, named for the noted industrialist who sent five sons to the university. The school also has its own art museum, whose primary purpose is to give students access to original works of art, thus enhancing learning and research. Princeton's art collection ranges from the ancient to contemporary and includes works from western Europe, China, and Latin America. The John B. Putnam Jr. Memorial Collection of twentieth-century sculpture includes pieces by such masters as Alexander Calder, Henry Moore, and Pablo Picasso.

Also of interest is Prospect House, once the residence of the school's president, which is now a dining hall and social facility for faculty and staff. The residence was built by Colonel George Morgan, explorer, gentleman farmer, and U.S. agent for Indian Affairs, and was acquired by the university in 1878. The gardens at the rear of the house were laid out by Mrs. Woodrow Wilson, who brought in Canadian evergreens to serve as a backdrop for her colorful flowers. Another special point of



interest is the Woodrow Wilson School of Public and International Affairs. This memorial to Princeton's most illustrious graduate helps prepare students for leadership roles in public service and is an appropriate embellishment to a university known as the "school of statesmen."

**Further Reading:** *James McCosh and the Scottish Intellectual Tradition* by J. David Hoeveler (Princeton, New Jersey: Princeton University Press, 1981) offers substantial information about the school from its founding days through Mc-

Cosh's 20-year tenure and beyond. *A Place Called Princeton* by Samuel A. Schreiner (New York: Arbor House, 1984) paints a more light-hearted, anecdotal portrait of the school, but still provides useful historic information. *Princeton Reflections* by the trustees of Princeton University (Princeton, New Jersey: Princeton University Press, 1982) offers very little historic information but contains stunning photographs of the campus and specific architectural features.

—Pam Hollister

# PURDUE UNIVERSITY

## (West Lafayette, Indiana, U.S.A.)

**Location:** Purdue University is located in West Lafayette, Indiana, a midwestern, state of the United States. The city of West Lafayette lies on the west bank of the Wabash River; the city of Lafayette lies on the east. Together the cities have an approximate population of 72,000. West Lafayette is roughly 60 miles northwest of Indianapolis, the state capital.

**Description:** Purdue University is a public school offering associate, bachelor's, and master's degrees, as well as doctorates and professional degrees. The total enrollment of the West Lafayette campus is approximately 35,000. The campus here is made up of 1,579 acres, including a university-owned airport. There are also four regional campuses offering degrees ranging from associate to doctorate: Purdue University Calumet in Hammond; Purdue University North Central near Westville; Indiana University-Purdue University Fort Wayne in Fort Wayne; and Indiana University-Purdue University Indianapolis, in Indianapolis. Purdue also runs ■ Statewide Technology Program.

**Information:** Visitor Information Center  
Purdue University  
504 Northwestern Avenue  
West Lafayette, IN 47907  
U.S.A.  
(765) 494-4636

**Visiting:** See above.

The city of Lafayette, in the west central part of Indiana, was founded on the east bank of the Wabash River in 1825. It was named for the French General Marquis de Lafayette who was visiting America at that time. West Lafayette's history begins in 1845 when it was founded on the west bank of the Wabash as the town of Kingston. In 1866 the town's name was changed to Chauncey, and in 1888 it was renamed West Lafayette. The area quickly gained importance as ■ commercial and transportation center for the surrounding agricultural region. Today Lafayette has a population of approximately 45,000. West Lafayette has a population of approximately 27,000. Lafayette is the seat of Tippecanoe County, named after the 1811 Battle of Tippecanoe in which Indian forces under Tecumseh were defeated by U.S. forces led by

General William Henry Harrison (later the ninth U.S. President). The battlefield is a national landmark several miles north of the city.

The origins of Purdue University lie in the Land-Grant College Act of 1862. This act, commonly known as the Morrill Act after its sponsor Justin S. Morrill, was signed into law on July 2, 1862, by President Abraham Lincoln. The act granted lands to any state for the establishment or the support of a college that would teach agriculture and engineering, called "mechanic arts." Today each state has at least one school that was developed through the Morrill Act, and Purdue University is that school for Indiana. In 1869 Indiana's General Assembly agreed to situate Indiana's land grant university near Lafayette and accepted \$150,000 from John Purdue, \$50,000 from Tippecanoe County, and 100 acres of land from area residents for the school. The assembly also agreed to name the school Purdue University after its generous benefactor John Purdue. Classes began in September 1874, with 6 teachers and 39 male students. The next year, Purdue University began admitting women, and it has been coeducational ever since. Purdue belongs to a group of schools known as the Big Ten. This association was started in 1895 when James Smart, president of Purdue, invited presidents of seven midwestern universities to Chicago to discuss regulating their intercollegiate athletic activities. The number of universities involved grew (today it is actually more than ten), and the Big Ten became known for their high academic standards as well as their fierce athletic competitions.

Founded to specialize in the teaching of agriculture and engineering, Purdue has the distinction of being noted for its fine agricultural and engineering programs even at the end of the twentieth century. Famous alumni to have graduated with engineering degrees include Neil Armstrong, class of 1955, who was the first man to step on the moon in 1969, and Eugene Cernan, class of 1956, who was the last man to walk on the moon in 1972. Other engineering graduates have also been an integral part of the U.S. space program. Those involved in the space shuttle program include John Blaha (degree received in 1966), Charles Walker (1971), Janice Voss Ford (1975), Gregory Harbaugh (1978), and Mary Weber (1984). No matter what their area of study, though, Purdue graduates have gone on to be leaders in their fields. Other famous alumni include George Ade, author and humorist; Booth Tarkington, author; Orville Redenbacher, businessman; Earl Butz, Secretary of Agriculture; D. Kirkwood Fordice Jr., a political leader and governor of Mississippi; Marilyn Quayle, lawyer and wife of U.S. Vice President Dan



*Purdue University*

Quayle; and Anne Stock, social secretary to First Lady Hillary Clinton. Nobel Prize winners associated with the university are Edward Purcell, for physics in 1952, and Herbert Brown, for chemistry in 1979.

The oldest building on campus today is University Hall, built in 1877 and located between Memorial Mall and Founders Park. Memorial Mall is the site of John Purdue's grave. Founders Park, dedicated in 1994, is an area of a little over two acres containing trees, walks, and a fountain. It was dedicated during Purdue's 125th anniversary year to commemorate all those who helped Purdue to grow in its early years. On the northern end of campus is the Ross-Ade Stadium, where Purdue University hosts football games. The stadium has a seating capacity of 67,861. The first game played here was in 1924. Purdue, however, had a football team long before that time. In 1891 the team acquired the nickname "Boil-

ermakers" after soundly defeating the football team from Wabash College, a neighboring school in Crawfordsville, Indiana. A local Crawfordsville newspaper ran a story about the game and used a number of unflattering terms to describe the Purdue team members, including "rail-splitters," "cornfield sailors," and "boiler makers." When Purdue students learned of this they were amused instead of insulted. They especially liked the image of a big, burly boiler maker—a worker who built boilers for steam engines—and the nickname "Boilermaker" stuck, becoming a source of school pride.

Purdue Memorial Union, which opened in 1924, lies to the southeast of Ross-Ade Stadium. The original Union building has had several major additions since that time. The Union houses such facilities as the Union Market food court, sandwich and snack shops, offices, bowling lanes, and hotel rooms for the Union Club. Located in the central



area of campus is the Frederick L. Hovde Hall of Administration, which was dedicated in 1937. This building contains offices for, among others, the president, the Purdue Research Foundation, and the registrar. Directly behind this building is the Edward C. Elliott Hall of Music, dedicated in 1940. This hall seats 6,027 and can be toured. The hall also houses studios for WBAA radio, Indiana's oldest radio station, which was established in 1922. In front of the Hovde Hall of Administration is the Purdue Mall. The Purdue Mall Fountain, located here, was given by the class of 1939 in 1989 and is 38 feet high.

Purdue University has a history of meeting the needs of its student body. One example of this history is the Recreational Gymnasium, the first university building in the nation built entirely for students to meet their sports needs. Co-Rec, as it is known, was completed in 1957 and was expanded in 1981. The gym is on the west side of campus, where there are also intramural playing fields and tennis courts. In 1958 the Stewart Center opened; it is connected by a subwalk to the Purdue Memorial Union. The center houses such facilities as offices for student organizations; meeting rooms; the Loeb Playhouse, with 1,046 seats; and the Experimental Theatre, with 176 seats. The Hicks Undergraduate Library is an underground facility joined to Stewart Center. The Slayter Center of Performing Arts, dedicated in 1965, is one of the most striking structures on campus. It is an outdoor concert facility with a 200-ton roof, suspended from stainless steel cables that radiate from the top point of an enormous steel tripod. Surrounding the concert stage are "stel-les," irregular-shaped columns each of which is at least 20 feet high. The Mackey Arena for sports activities is at the north end of campus near Ross-Ade Stadium. The arena was dedicated in 1967 and has a seating for 14,123. Other noted buildings and structures on the campus include Lilly Hall of Life Science (1951), A.A. Potter Engineering Center (1977), Krannert Center for Executive Education and Research (1983), Maurice G. Knoy Hall of Technology (1984), the Bell Tower (1995), and Academy Park (1996).

Purdue University offers associate, bachelor's, and master's degrees, as well as doctorates and professional degrees. The university is composed of the following schools: agriculture; consumer and family sciences; education; engineering; health sciences; liberal arts; management; nursing; pharmacy and pharmacal sciences; science; technology; veterinary medicine. There is also a graduate school division. Associate degrees for two years of study are specifically offered at the schools of agriculture, consumer and family sciences, science, technology, and veterinary medicine. Four-year bachelor of arts and bachelor of science degrees are offered, as well as bachelor of science in specific areas, such as aeronautical and astronautical engineering, agricultural engineering, and forestry. The graduate school offers master's degrees and doctorates. Professional degrees conferred are doctor of

pharmacy and doctor of veterinary medicine. Total enrollment at Purdue is approximately 35,000, with about 28,500 of those being undergraduates. Men make up 58 percent of the student body, while women make up 42 percent. Over half of the undergraduates come from Indiana. The rest of the students are from other states (mostly in the midwest) and foreign countries. Of the foreign students, most come from Asia, Europe, or Latin America. Admission to Purdue is based on a number of factors including scores from the standard college admission tests SAT or ACT, high school grade point average and class rank, and recommendations.

As well as being a center for learning, Purdue University is also a center for research. Funding for research comes from the federal and state governments, industry, and foundations. There are more than 400 research laboratories on the campus. Among the major research programs are the Agricultural Research Programs; AIDS Research Center; Cancer Research Center; Center for Applied Ethology and Human-Animal Interaction; Center for Tax Policy Studies; Engineering Experiment Station; Purdue Rare Isotope Measurement Laboratory; and Purdue Research Foundation. Today the West Lafayette campus has an area of 1,579 acres, which includes the Purdue Airport. The airport is on the southwestern side of campus and has the distinction of being the first university-owned airport in the country. It was established in 1930. Housing for students at the university is available in school-owned and operated resident halls. The school also has apartments for married students. There are 43 fraternities and 24 sororities, all of which have chapter houses. There are also 11 cooperative homes. Students may live off campus in privately owned apartments. *The Purdue Exponent* is the school paper and is published five times a week during the fall and spring semesters. Free copies of the paper are available on campus and help keep the student body informed and united.

Purdue University has four regional campuses: Purdue University Calumet in Hammond, Indiana; Purdue University North Central near Westville, Indiana; Indiana University-Purdue University Fort Wayne in Fort Wayne, Indiana; and Indiana University-Purdue University Indianapolis in Indianapolis, Indiana. Purdue University Calumet is a 180-acre campus located in Hammond, Indiana, a city of about 84,000 and 25 miles southeast of Chicago, Illinois. Over 9,000 students are enrolled here and degrees offered are at the associate, bachelor's, and master's levels. Purdue University North Central is a 275-acre campus for commuter students. There are over 3,000 students, and at this campus they can receive any of several associate or bachelor's degrees. One master's degree program, in elementary education, is also offered. Indiana University-Purdue University Fort Wayne is in Fort Wayne, Indiana, a city with a population of approximately 170,000. The campus covers an area of 565 acres near the St. Joseph River. Students have the option of

earning associate, bachelor's, and master's degrees from Indiana University or Purdue University. There is no school sponsored housing. Student enrollment is over 10,000. Indiana University-Purdue University Indianapolis is administered by the Indiana University system. At this combined university in Indianapolis, the capital of Indiana, Purdue programs are taught, and there are specific Purdue schools, such as Purdue School of Engineering and Technology. There are also Indiana University programs and schools. Degrees from the associate level to the professional level are offered. Enrollment is approximately 27,000, over 3,000 of whom are Purdue students.

Throughout its history Purdue University has worked to contribute to the community at large. One way Purdue aims to provide skilled workers for local economies is through the Statewide Technology Program. This program, overseen by Purdue's school of technology, brings together leaders from Purdue, local businesses, and communities to identify a need in that area's job market. To meet a region's need for a certain type of skilled worker, Purdue institutes programs taught by their technology faculty at existing sites in the area. These specially directed and easily accessible programs allow students to earn a Purdue associate or bachelor's degree without needing to move away from home and family. Often the students involved in the Statewide Technology Program are nontraditional; they are older, perhaps married and working, and seeking to improve their careers. Currently the program has over 1,600 students in 10 cities (Ander-

son, Columbus, Elkhart, Indianapolis, Kokomo, Muncie, New Albany, Richmond, South Bend, and Versailles) throughout Indiana.

Total statewide enrollment of Purdue schools is near 64,000 and is expected to keep growing. As Purdue looks to the future and plans for the students of tomorrow, Purdue alumni continue to contribute to every aspect of our society today.

**Further Reading:** Maps and brochures about Purdue University are available from the Visitor Information Center (Purdue University, 504 Northwestern Avenue, West Lafayette, IN 47907) or the Office of Publications (Purdue University, 1131 South Campus Courts-D, West Lafayette, IN 47907). Purdue's website, [www.purdue.edu](http://www.purdue.edu), also contains much information, including applications and admissions information. Robert W. Topping's *A Century and Beyond: The History of Purdue University* (West Lafayette, Indiana: Purdue University Press, 1988) provides a look at the development of the school; while his *The Book of Trustees, Purdue University, 1865-1989* (West Lafayette, Indiana: Purdue University Press, 1989) looks at those who influenced the growth of the institution. Other books on specific Purdue topics are also available, such as John Norberg's *A Force for Change: The Class of 1950* (West Lafayette, Indiana: Purdue University, Office of Publications, 1995).

—Anne C. Paterson



# RADCLIFFE COLLEGE

## (Cambridge, Massachusetts, U.S.A.)

<b>Location:</b>	In Cambridge, Massachusetts, adjacent to Harvard University.
<b>Description:</b>	A private college enrolling approximately 2,904 undergraduate students in conjunction with Harvard College.
<b>Information:</b>	Office of Admission Byerly Hall 8 Garden Street Cambridge, MA 02138 U.S.A. (617) 495-1551
<b>Visiting:</b>	Guided tours are available. For more information, call (617) 495-8601.

After she had completed her undergraduate work in history at Smith College in 1879, Kate E. Morris, a bright, intellectual young woman from Hartford, Vermont, was enthusiastic about undertaking postgraduate work in medieval history. As a girl, she had lain awake nights “hating men,” because they could go on to college when women could not; but in the year 1879 she read a circular advertising the beginning of an experiment in education for women. A group of professors at Harvard College, the circular read, had consented to give private instruction “to properly qualified young women who desire to pursue advanced studies in Cambridge.” Thus Morris was among the first female students to enroll in the “Harvard Annex,” which would develop into Radcliffe College.

As early as 1872 a group of women in Cambridge, Massachusetts, initiated efforts to make a place for women at the all-male Harvard College. Named the Women’s Education Association, this group of Harvard-connected women worked during the 1870s as advocates for the education of women. With the arrival of the first class at the Harvard Annex in 1879, the first step was taken toward the long process of education for Radcliffe College women. Upon arrival in Cambridge, Massachusetts, Morris found herself in a class of 27 women. As she wrote in her letters, the varied female students divided into four groups. Some of them were completing a full four years of college courses; others were postgraduates in mathematics, modern languages, and history; yet others were teachers from Boston and Cambridge; and there were also the “Cambridge ladies” who Morris described as “polishing up some single study.”

The young women stayed in rented rooms in Cambridge, and Harvard professors offered classes in private; initially there were no classrooms, libraries, or laboratories. Female students crossed Harvard Yard to borrow books from the Harvard library. Morris laughingly described herself as “a beast of burden” who ran across Harvard Yard to her rented rooms on Sparks Street in Cambridge with her arms full of books. Nonetheless, the early classes of private instruction had opened the door to educational opportunity for women, and in 1882 the Annex was legally incorporated as the “Society for Collegiate Instruction for Women.” Elizabeth Cary Agassiz, the president of the Committee of Managers of the Harvard Annex, was appointed as the society’s first president.

Agassiz described the instruction of women in Cambridge as “an experiment.” But the experiment was becoming a reality. With over 200 women studying in the early program, the society purchased land and a building. But postgraduate work was not available, and the society still awarded a certificate, rather than a college degree. Morris, determined to complete her Ph.D. in medieval history after her first year of study at what was still familiarly known as the Annex, petitioned Harvard College for permission to do so, but permission was denied. Energetic and determined, she completed her Ph.D. at a different institution for women.

The rapid growth of the early “experiment” in instruction for women made it obvious by the 1890s that a formalization of the relationship between Harvard and the women’s program of instruction should take place. Alumnae from the original classes, along with many distinguished persons, petitioned Harvard: their demand was that Harvard grant degrees to women. Thus, in 1893 Harvard entered into negotiations for the establishment of an independent college for women.

The meeting room at the Massachusetts State House in which the petition to grant a general charter to Radcliffe College was discussed in 1894 was filled beyond capacity—mostly with individuals who opposed the plan. But the petition prevailed, with Agassiz giving a compelling speech on successful past work and plans for the future. In 1894 Radcliffe College was formally incorporated and established as a degree-granting institution. Named for Ann Radcliffe, Lady Mowlson, the college’s name reflected the efforts of the woman who in 1643 donated £100 to the first Harvard scholarship fund.

As reflected in its charter of 1894, Radcliffe College was to provide instruction for women students by Harvard professors, and to grant college degrees signed by the pres-





### *Radcliffe College*

idents of Radcliffe and Harvard colleges. Along with the charter came the first Radcliffe College administration. Agassiz was the first president of Radcliffe College. During her administration, the physical plant of Radcliffe College developed. A gymnasium was built, and land was purchased for the future construction of dormitories. By the approach of the twentieth century, Radcliffe College had begun to make the words of Morris a reality. "Women," Morris wrote in a letter to a friend, "should know everything, should have every chance in the world for self-support." The twentieth century presented a time of reorganization and growth. Agassiz announced her suc-

cessor as president of the college at the turn of the century. During the 20 years that her successor, Le Baron Russell Briggs, served as part-time president of Radcliffe College (while also holding the post of Dean of Arts and Sciences), administrative tasks were largely performed by a succession of six women deans. One such dean, Agnes Irwin, helped to secure \$75,000 from Andrew Carnegie for the building of Radcliffe Library. Even while President Briggs believed that education should not teach women to compete with men, Radcliffe College continued to grow.

Radcliffe's first full-time president, Ada Louise Comstock, assumed office in 1923. She guided the college

through the boom of the 1920s, the Great Depression, and the early days of World War II. In her farewell address to the Alumnae Association in 1943, she remembered the difficult days around 1930:

And then there was a hard period of four years . . . President Lowell [A. Lawrence Lowell, president of Harvard] saw the defects of the relationship between Harvard and Radcliffe, as they have been seen recently, but the cure that was proposed, that of splitting Radcliffe off completely from Harvard, would, I think, have been fatal to Radcliffe . . . Mr. Lowell was a resourceful and determined man; and the struggle, for those four years, was pretty nearly incessant and at times gave us great anxiety.

In Lowell's view, Radcliffe was a drain on the Harvard faculty and facilities. An accommodation was reached when Radcliffe agreed to limit the size of its student body and to abandon any requests for extended privileges in the university.

Another historic event for Radcliffe occurred in 1943, when the Women's Archives (later named the Schlesinger Library) were established. Alumna Maud Wood Park gave papers, books, and memorabilia documenting the 72-year suffrage movement (1848–1920), encompassing the years when women struggled for, and finally won, the right to vote. Other documents Park donated related to the women's political and reform work after 1920. The Schlesinger Library holds the papers of a host of distinguished women: Susan B. Anthony, pioneer women's rights advocate; Harriet Beecher Stowe, author of *Uncle Tom's Cabin*; Charlotte Perkins Gilman, lecturer and advocate for labor; Julia Child, television chef and co-author of *Mastering the Art of French Cooking*; Betty Friedan, author of the book often regarded as the "Bible of the feminist movement," *The Feminine Mystique*. The library's collection also includes a series of interviews with Latino, Cambodian, and Chinese-American women.

While the Schlesinger Library began to document the impact of women on the history of America, one of the major social issues Radcliffe faced continued: the full admission of women into Harvard programs. In 1943 Harvard and Radcliffe made an agreement that President Comstock called "the most significant event since our charter was granted by the legislature in 1894." In the past, Radcliffe had paid individual Harvard faculty members for teaching at Radcliffe. Now Radcliffe would turn over 85 percent of its tuition to Harvard in a lump sum. With these terms each Harvard instructor would be obliged to teach at Radcliffe if his department decided that he ought to. While the agreement was a step in the direction of coeducation, it did not strictly require the integration of males and females. Since World War II had drained Harvard of both students and faculty, coeducation for all but freshmen classes was adopted as a temporary expedient.

With the arrival of the 1970s change accelerated at Radcliffe College. By 1970 Radcliffe graduates joined their male counterparts at Harvard for the first joint commencement. Separate dormitories were abolished in 1971, and by 1975 equal access for women and men became university admission policy. In a 1977 milestone agreement (sometimes referred to as the merger/non-merger), Radcliffe women were granted the rights and privileges of a Harvard education. Historian Dorothy Elia Howells described the terms:

Radcliffe delegates to Harvard responsibility for classroom instruction of undergraduate women and management of the house system subject to consultation with the President of Radcliffe. Radcliffe's financial responsibility for the education of undergraduate women includes payment to Harvard of all tuition money and close to one million dollars in 1977–78 from endowment income and from unrestricted funds for financial aid to undergraduate women students. This latter amount will increase yearly.

At the same time, Radcliffe College was reaffirmed as a separate corporate institution. Charged with promoting the higher education of women, Radcliffe College continues to promote educational opportunities for women and to sponsor research that seeks to understand and promote the work of women scholars on social and academic issues. One such program is the Radcliffe Seminars Program. Established in 1950, it is a pioneering program in the continuing education of women. The Radcliffe Seminars Program provides courses in liberal arts, child advocacy, health care education, and landscape design. According to Howells, the courses are for "mature women" who desire what Radcliffe president Wilbur Jordan called "an opportunity to share ideas with other adults in an organized way." The seminars are open to the public and enjoy ■ growing enrollment. The Radcliffe Publishing Course, established as ■ four-month course, has become since its inception in 1946 what some call "the shortest graduate school in the world." The program is designed to teach the procedures of publishing; it often acts as an entry card to the world of publishing for its graduates.

Even as it has successfully struggled toward full access to quality education for female students through its joint relationship with Harvard College, Radcliffe College has had to confront the stereotype of being an elite institution for white women of established classes. In fact, in the early days of the Harvard Annex, many of the young women who chose Radcliffe were, according to Howells, "the middle-class daughters of Massachusetts clergymen, teachers, and physicians." Many of the early students were teachers in Boston schools who commuted to their classes in Cambridge by horse-drawn car from Boston.



The women were not, by and large, daughters of New England's wealthy elite. Dr. Sally Schwager, author of a history of Radcliffe College, states that early Radcliffe commuters were quite different from "the tradition of finishing school and a year on the continent." Further, Schwager points out, this class difference was a source of irritation to the Harvard men of the 1890s. One alumna described the difficulties she face:

It was inordinately difficult to persuade friends and relatives that it was suitable for a girl to go to college at all. My brothers were the seventh generation of Fuller boys at Harvard but no Fuller girl had dreamed of Radcliffe till I came along . . .

I had two cousins at Harvard at the time and they threatened me that is I ever disobeyed the rule [of not going to Harvard Square] they's contrive to find it out and "fix" me. It was bad enough, they contended, to have the disgrace of a cousin at Radcliffe without running the risk of meeting her on the street and being obliged to cut her . . .

I took a course with Mr. Copeland and my grandmother once said to him, "I hope you realize that my granddaughter is a lady though she does go to Radcliffe.

Indeed, the initial days of the Harvard Annex—with its course work for qualified women students in the 1890s—opened a wellspring of desire for education among people of all classes. Schwager cites a nineteenth-century letter of inquiry to the founders of the Harvard Annex from a woman in Malvern, Ohio, who wanted schooling for her ten-year-old niece. "I am quite illiterate myself," wrote the aunt, "but if money will give her an education, she will have it." Schwager also notes the father of a 16-year-old daughter in Sonoma, California, who wrote "to request the new program in the form of correspondence or reading lists." His daughter, he wrote, read only a 'jumble of books' and he wanted more for her, but he could not send her to the new school in Cambridge. Clearly, Radcliffe College struck a nerve in American society when it opened the doors to higher education for women in the 1890s.

Early Radcliffe women also struggled against nineteenth-century beliefs that women who pursued higher education lacked mental capacity or moral fiber. Many Harvard professors provided excellent instruction for Radcliffe undergraduates; yet allegations were made that "Radcliffe students didn't offer the 'mental resistance' necessary to keep sharp the edge of the professor's minds," according to Howells.

An interesting refutation to this argument was an account reprinted in the *Boston Post* of March 24, 1888. According to historian Howell's account, the Bowdoin Prize was the highest prize awarded for English dissertations from Harvard College. The prize carried a monetary

award of \$100. A smaller prize, also for work in English, was to be awarded to the women students whose work would be reviewed by the same judges. In the competition for the year 1888, first prize was given to a writer by the name E.B. Pearson. Pearson's name, however, was not found in the Harvard College register. When the news came out that the author was "a young lady" and a student in the Annex, the *Boston Post* reported

Miss Pearson dropped at once from the Bowdoin prize of \$100 to the humbler Annex prize of \$30, thus paying \$70 outright for the privilege of being a woman. The crowing fact is that the venerable Professor Torrey [the contest judge] is one of the few professors who have disapproved of the Annex . . . having held that neither the brains nor the bodies of women were equal to severe study.

Indeed, until 1959 the basement of Memorial Church, just outside of Harvard Yard, maintained the "Radcliffe room": a place with beds and an attendant who "ministered to women," because it was thought that the long excursion from Radcliffe Yard to Harvard Yard was too tiring for ladies.

More than 100 years of Radcliffe College scholarship have changed that impression. Internationally known for its academic reputation, Radcliffe College graduates include the writer Gertrude Stein and the poet Adrienne Rich.

Today, Radcliffe College argues for its continued importance. While Harvard College has the responsibility for undergraduate life, "Radcliffe provides a variety of programs for undergraduate women such as research partnerships, leadership training courses, career colloquia, and lectures on women's issues."

However, some suggest that Radcliffe has all but ceased to survive. *Boston Globe* columnist Alex Beam wrote,

Radcliffe, which merged with Harvard in 1977, has for all practical purposes ceased to exist. Consider: Radcliffe has a lovely campus, but it has no students. The 'Cliffe ceded "day to day management of undergraduate life" to Harvard in the 1977 nuptials. Radcliffe—once called the "Harvard Annex"—has an administration building, but no faculty. It does have one tenured professorship, but it is not currently filled . . . There are cynics who suggest that Radcliffe exists only to support its active Alumnae Association, which promotes the college's putative existence in glossy mailings to tens of thousands of pre-1977 alumnae. "It's sort of like the Alumni Association for the Austro-Hungarian Empire," says one sardonic Harvard grad. "Their buildings remind me of Vienna—they have all these elegant facades. But there's nothing behind them." Even Radcliffe officials have a hard time explaining where the col-



lege fits in. Women apply to Harvard and are officially accepted by Radcliffe. They are taught exclusively by Harvard professors and live in Harvard dorms, some of them Radcliffe territories ceded in the Treaty of '77. Diplomas in hand they leave Cambridge as graduates of Harvard College.

Others, including Linda Smith Wilson, president of Radcliffe since 1989 and an important advocate for the continuing education of women, believe that the college will be needed more than ever in the next century and beyond. She said, "The role Radcliffe plays for undergraduates is to promote leadership, risk taking, and expectation of success [for women]." The expanded educational opportunities for women provided by Radcliffe College at the close of the twentieth century may

well be what Kate Morris asked for in her entry to the Harvard Annex in 1879: a place where women could excel, and succeed.

**Further Reading:** Dorothy Howell's *A Century to Celebrate: Radcliffe College, 1879–1979* (Cambridge, Massachusetts: Radcliffe College, 1978) provides a lengthy account of the founding and current history of the college. *Smith Grants Radcliffe's First Ph.D.*, edited by Margaret Farrand Thorp (Northampton, Massachusetts: Smith College, 1965) provides letters by Kate Morris, which detail her experience as one of the first female students at the Harvard Annex.

—Rosemarie C. Sultan

# REED COLLEGE

## (Portland, Oregon, U.S.A.)

<b>Location:</b>	Across the Willamette River from the center of the city of Portland.
<b>Description:</b>	A private, independent college of liberal arts and sciences, with 1,200 students and 125 faculty.
<b>Information:</b>	Public Affairs Office Reed College Portland, OR 97202-8199 U.S.A. (503)777-7511 (800) 547-4750

Reed College is an intense and highly intellectual 1,200-student undergraduate institution on a 100-acre wooded campus in Portland, Oregon, but for all of its size, it attracts national attention.

Reed College was founded in 1909 by the board of trustees named in Amanda Reed's 1895 will, establishing "an institution of learning, having for its objects the increase and diffusion of practical knowledge among the citizens of Portland." The institution was called the Reed Institute. Mrs. Reed's 1904 bequest was for just under \$2 million; in today's dollars, the gift would be worth over \$50 million.

Simeon Gannet Reed had left all his wealth to his wife when he died in 1895, suggesting that she contribute at least some of it "to the beauty of the city and to the intelligence, prosperity, and happiness of the inhabitants." Son of a prosperous Massachusetts family, the 25-year-old Simeon Reed had settled in Portland in 1855; by 1880, he was one of the richest men in the city, having done well in navigation, mining, and real estate. Reed was known for honesty in business dealings, for loyalty to his friends and to Oregon, and for generosity in philanthropy. In 1887, the Reeds' pastor, the Reverend Thomas Lamb Eliot, suggested that they found an institute of "lectures and arts and music and museum." The Reeds liked the idea, and Mrs. Reed's will named the Reverend Eliot as chairman of the institute's first board of trustees.

Neither Simeon nor Amanda Reed specified exactly how their gift to the city should be spent. Mrs. Reed's only stipulation was that the new school be free from sectarian influence. By 1909, when the bequest was freed from the protests of disappointed relatives, the trustees were inclined toward the establishment of a liberal arts college. However free they were to do as they

thought best, the trustees were mindful of the Reeds' preference for the practical and commercial rather than the artistic and the intellectual; accordingly, they sought outside counsel, including that of a John D. Rockefeller-sponsored national foundation known as the General Education Board. The board's secretary, Wallace Buttrick, spent several weeks in Portland taking stock of the city's educational needs. He concluded that there was a strong need for a "college of strictly collegiate rank," as opposed to the trade and technical schools, of which there were already several in the region. Buttrick said that such a college "would furnish ideals for the state." Thus encouraged, the trustees founded Reed College in 1909 as a liberal arts college, determined that it be of the best possible quality.

The first order of business was to find a president suitable for the college. Again the trustees turned east to Buttrick for help, and also to one of the leading educators of the period, Charles W. Eliot, president emeritus of Harvard University. One of the first names suggested was a former student of Eliot's, a 31-year-old professor of English and Argumentation at Bowdoin College, William Trufant Foster, who was at the time on leave from his position, and lecturing in educational administration at Columbia University. Already the author of three books and numerous articles, Foster had earned a reputation as a reformer. Reed attracted him because of the freedom it offered from alumni and from traditions and commitments made by others. When the trustees accepted Foster's condition that he be allowed to commit the college to the highest standards, he accepted the presidency.

Reed's first president arrived in Portland already on record as being deeply unhappy about the state of American higher education. For Foster, the problem lay with the quality of student life. It had, he thought, "somehow gone wrong." Among the issues that Foster thought accounted for the problems were the growth of intercollegiate athletics and the inappropriate attention to social life, both of which he believed took students' attention from intellectual pursuits. To those who thought that colleges were places for "gentlemen," Foster replied with contempt that gentlemen were "youth free from the suspicion of thoroughness or definite purpose." Reed was to be a place where students could "stop the nonsense and get down to serious work." Accordingly, there would be no fraternities, no sororities, and no intercollegiate athletics. Foster was uncompromising in his vision of a college in which "intellectual enthusiasm" by the students would dominate; his commitment to that single goal was so intense that some said it bordered on the fanatic.



*Reed College*



Foster set about starting Reed on the right path. He sought superior faculty and an intelligent and serious student body. Classes began in 1911, with a handful of faculty offering courses to 23 young men and 23 young women. Foster instituted campus practices that would clear the way for academic seriousness, and with an acute awareness of the importance of marketing, Foster quickly cultivated national support for his college through a vigorous public relations campaign.

In his first six years as president, Foster built a young and energetic faculty from the nation's best academic institutions: Harvard University, the University of Chicago, Stanford University, the University of California, Radcliffe College, Columbia University, and Williams College. Of the first dozen hired, only one was over 40 years of age, while several were under 30. From the beginning, the faculty was at the very center of Reed's academic development, and it has remained there ever since.

To guarantee that Reed started off with bright students, Foster personally assessed all applications, to be sure that students measured up on paper; he evaluated their motivations by interviewing them personally. Foster was particularly appalled by the widespread practice in many major schools of filling out their freshmen rosters with students who did not meet the stated requirements but who were admitted "on condition" or as special students. After World War I, inundated by increasing enrollments, a number of colleges seeking the highest quality students became very selective in their admissions. Reed started that way and has not changed.

Although students' courses were electives, Foster had constructed a system to make certain that students would remain serious and work hard. Each student was required to write a thesis and then to defend it in an oral examination by a group of faculty members. In their third year, students were required to take a comprehensive examination, the Junior Qualifying Exam ("Junior Qual"), before they could be admitted to their senior year. Sociologist Burton Clark wrote that these stringent requirements are more commonly found in a program for the master's or doctor's degree, not in an undergraduate college. Clark went on to say that when some of these requirements appear in an undergraduate institution, they usually apply only to honors students and that Reed had, in effect, made itself an honors college.

As if to make the point that every student was an honors student, the Reed faculty early on decided to de-emphasize grade awareness and competitiveness by the simple expedient of not informing students about grades until graduation. Not much was made of this policy, initially—it merited no mention in catalogues of the day—but eventually faculty and students proudly claimed it as a symbol that Reed was about knowledge for knowledge's sake.

Also from the very beginning, the president and the staff de-emphasized extracurricular activities. There was a sports program, including faculty as well as students,

but it was strictly intramural. With the exception of a brief period at the end of the 1910s and in the early 1920s, when Reed sought to right its sinking ship by venturing forth into intercollegiate athletics, the absence of intercollegiate athletics has consistently remained a defining characteristic of the college. However, Foster supported organized social activities among the students, especially if they were democratic and campus-wide.

Reed's first president evidently (but erroneously) thought to do well for his school by doing well in the community—specifically by improving the moral character of the school's home city and its citizens. Foster thought of Portland as the "city-wide campus," and he took his various messages of civic enlightenment to the people in the form of free lectures and heavy faculty involvement in community affairs. In 1913, for example, he and 11 other speakers presented a lecture series at a downtown hotel on "Sexual Hygiene and Morals." Attendance at these and other such events moved from 3,000 in 1911–12 to over 48,000 in 1916–17. Despite the numbers, the city was less than grateful; when Foster resigned in 1919, the *Portland Telegram* wrote that he "has no tact."

While Reed College was receiving favorable reviews nationally (in large part because of Foster's writings about the school in various popular and academic publications) and high marks from other academic institutions, its reputation in its home community was anything but warm. Foster's "do-goodism," the irritating arrogance of his system of Simplified Spelling (more phonetic than elegant—with spellings such as "involvs" and "alfabetical"), and the lack of a home team to root for made it hard for the college to get local support. These problems did not soon abate.

The immediate consequence of Portland's animosity toward Reed was that the college's financial base crumbled. President Foster's virtues of uncompromising vision and stubbornness were perceived by many, some faculty included, as vices. Most of the original faculty had left by 1919; shrinking salaries made it hard for the rest to appreciate Foster's leadership. When he resigned in 1919, he was not asked to reconsider. The school barely survived the next two years, administered by small committees of faculty. When Richard F. Scholz took over two years later as Reed's second president, the college's staff consisted of eight faculty members and a librarian.

Scholz managed to accomplish much in his three years (he died in 1924, at age 43). He doubled tuition, better managed the endowment investments, dramatically increased outside funding, and improved relations with the city. He was able to recruit six full professors and a dozen new faculty in the lower ranks; of the six senior men, five remained permanently. As it happened (not accidentally), Scholz's hiring preferences served to concentrate academic strength and faculty power in the humanities. Scholz fully accepted Foster's founding

premise about promoting academic excellence, but he thought the curriculum he inherited was overly elective.

Accordingly, Scholz and the faculty, after considerable deliberation, designed new courses in the humanities. The courses in history and world literature would be run along parallel time lines. In addition, students would take courses in the natural and social sciences. New freshmen thus found themselves fully involved with the humanities, to the exclusion of almost everything else, and only slightly less so as sophomores. In 1943 the two parallel courses were combined into one; and while there has been some occasional experimental tinkering since and a few new courses added (including ■ year-long sophomore sequence in Chinese Humanities in 1995), Scholz's strong emphasis on the humanities became—and remains—one of the hallmarks of ■ Reed education.

President Scholz's other major contribution to Reed was structural. Interested in "an honest effort to disregard old historic rivalries and hostilities between the sciences and the arts, between professional and cultural subjects," he sought integration of the faculty across related disciplines. To this end, he combined academic departments into four divisions of related subjects: literature and language; history and social science; mathematics and natural sciences; philosophy, psychology, and education. Some departments are housed differently now, but the basic four-part structure remains. Each division is responsible for upper-class instruction and for shepherding students through their majors.

Richard Scholz was Reed's second strong president as well as its second president. Since his death in 1924, Reed College has had 15 presidents. Four of these were "acting," and four others are considered to have been "interim." Paul Bragdon was president for 16 years in the 1970s and 1980s, and Richard Sullivan for 11 years in the 1950s and 1960s; the rest, including the "actings" and "interims," averaged three years each. The ones who lasted longest tinkered least with the basic Reed formula, and the ones who tinkered most, or tried to, were soon gone. Since Scholz, the faculty (almost always the senior members by far) has run Reed.

One of Foster's legacies (not necessarily the best) is that he refused to establish the rank of associate professor. There were full professors, assistant professors, and instructors. Turnover was high in the lower ranks and low in the higher rank, and the higher rank consisted of mostly men who had come to believe deeply in the Reed ethic. The rank of associate professor finally came to Reed to 1946, but by then the pattern of senior faculty dominance in matters of curriculum and student affairs was well established.

President Dexter Keezar, in the late 1930s and early 1940s, encountered enormous resistance to his schemes to develop more extracurricular activities for students and more courses with a practical orientation. Duncan Ballantine's attempts in the early 1950s to point the

institution in dramatically different directions (develop the student's whole personality, offer vocational preparation and avocational skills, and tighten up the permissive atmosphere) ran head-on into a wall of faculty opposition and student hostility.

Student life at Reed has run the gamut from highly social and somewhat organized in the beginning to highly individualized and, at times in its recent history, completely anarchic. Before World War II most of the student body came from the Northwest, from Oregon, and especially from Portland. After the war, the school's reputation drew applicants increasingly from other parts of the country and from abroad. But while accents may have become more varied, the Reed culture of seriousness, intelligence, and independence has remained self-reinforcing, more or less guaranteeing that student life would remain true to form: distinctive, nonconformist, and highly individualistic.

Reed worked for ■ long time to become a fully residential college. In the mid-1930s almost nine out of ten students lived off campus; by 1960, almost all were in residence. Now, all freshmen and half the entire student body live on campus, while most of the rest are within a mile. But no matter where students lived, over the years Reed students progressively isolated themselves from life outside the college, and in important ways, from each other as well. Students in the 1930s were involved in numerous clubs and activities, including formal dances and formal dinners. These involvements diminished over the next three decades, so that by the early 1960s the values of spontaneity and extreme individualism all but destroyed all formal student organizations.

Student conduct was for ■ long time somewhat substantively governed by "the honor principle," which in the beginning consisted of certain ideals that grew out of ■ sense shared among students of what behavior was appropriate for young adults engaged in serious pursuits. Over time, the idea of "shared" became less attractive for many, and "honor" came to have more to do with freedom than with accountability.

The experimentation, excitement, and turbulence which characterized American universities and colleges in the late 1960s and early 1970s came much earlier to Reed College and lasted much longer than anywhere else. The issues were mostly related to matters of governance, change, and student life. Richard Sullivan's presidency (1956–67) managed to eliminate most of Portland's animosity toward the college, and Portland in its way became more like the college in its embrace of the flavor of the times. There were numerous campus discussions about new curricular ideas, new programs, and even about opening ■ graduate school. This last proved to be extremely divisive in the Reed community. In the end, the faculty defeated the proposal by a narrow margin. However, hard feelings remained, and several faculty members resigned.



For students during the 1960s, the logic of the times and the logic of leave-us-alone individualism worked to take issues concerning student life further and further away from faculty scrutiny; this move was reinforced by the shift among humanities and social sciences toward more scholarly research and publication, toward, in other words, the position already occupied by faculty members in the sciences. This too meant reduced faculty involvement in student life.

Minority rule by senior faculty continued. For 30 years, off and on, from the 1960s to the 1990s, elections to the two key faculty committees were controlled by younger faculty who took the trouble to organize themselves and run slates of people committed to taking a long look at issues such as Reed's character and identity and curriculum. These elections generated much controversy but little change during this period; a black studies program came and went; there was talk of interdisciplinary programs and talk of some nonwestern curriculum ideas. None of these proposals were more than talk.

In the late 1960s, after Richard Sullivan's departure, there followed three interim presidents; the institution became unstable, and in 1971, Reed came very close to closing for financial reasons. The college wrote a new financial plan, which was followed by a radical reduction in the size of the faculty and a reduction in programs. Student life was in a state of anarchy and the honor principle virtually collapsed. Students managed to gain the autonomy they wanted, but in the process gave up their involvement in curriculum development. With the faculty withdrawn from issues involving student life and with the students withdrawn from issues involving curriculum development, Reed College entered a long and stressful period.

Under President Paul Bragdon (1971–88), finances improved dramatically and the college stabilized, albeit on the side of no major curricular revisions. Bragdon created Reed's first dean of students and a student life program; both took several years to gain enough faculty acceptance to make them viable. Power among the faculty eventually swung again toward a relatively new, younger faculty.

By the mid-1990s, while certain issues remained problems, Reed College appeared to have healed. A college publication listed a sampling of some 50 student organizations, and then commented: "The College recognizes

that students have control of their own lives and can decide for themselves what organizations they want to create." The honor principle began to have shared meaning again—the preamble to the 1989–90 Community Constitution specifies that "dishonesty, intimidation, harassment, exploitation and the use or threat of force are incompatible" with the freedom necessary for inquiry and scholarship. The faculty no longer looked on the student affairs program as "neo-nannyism," and the curriculum took on a more contemporary look with the addition of Spanish, Chinese Humanities, and Chinese.

Graduates of Reed College perform very well in the nation's top graduate and medical schools, and Reed turns out such students in percentages and numbers that vastly exceed its size. It is, for example, second in the nation among all four-year private institutions in the number of graduates who have gone on to earn Ph.D.s in computer science, and Reed does not have a computer science department.

Reed's first Rhodes scholar was named in 1918. In 1921, three Reed graduates were at Oxford concurrently on Rhodes scholarships; in 1936, four were in residence at the same time. This tiny college in the northwestern United States has produced 30 Rhodes Scholars since 1918, a number met by only one other liberal arts college in the country. While Reed has been known since the 1920s for its strong humanities program, almost half its Rhodes scholars were graduated as science majors.

Reed College closes its ninth decade with its historic reputation intact. The atmosphere is intense, the intellectual demands are strong, and measuring by graduate school placements and accomplishments, Reed students are very well prepared in methods of inquiry and in the world of ideas.

**Further Reading:** Burton R. Clark's *The Distinctive College: Antioch, Reed & Swarthmore* (Chicago: Aldine, 1970) offers a sociologist's historical analysis of the origins and development of Reed College from the beginning to the early 1960s. Richard E. Ritz's *A History of the Reed College Campus and Its Buildings* (Portland, Oregon: Reed College, 1990) deals with the history of the campus's architecture.

—Richard Allen Chapman



# RICE UNIVERSITY

## (Houston, Texas, U.S.A.)

- Location:** Three miles from the downtown area of Houston, Texas.
- Description:** A private, coeducational university enrolling approximately 4,100 students in the undergraduate, graduate, and professional degree programs.
- Information:** Office of Admissions  
P.O. Box 1892  
Houston, TX 77251-1892  
U.S.A.  
(713) 527-4036  
(800) 527-6957
- Visiting:** Tours are scheduled on weekdays at 11:00 A.M. and 3:00 P.M. and Saturdays, 10:30 A.M. No appointment is necessary. Please contact the Office of Admissions for additional information.

As a successful businessman and philanthropist with a lifelong interest in education, William Marshall Rice's dream was to establish upon his death an endowed educational institution. Initially, his ideas took form as a school for orphans, then as a high school, and finally achieved realization as a public library and Institution for the Advancement of Literature, Science, Art, Philosophy, and Letters. The Rice Institute of Houston (now known as Rice University) opened its doors to the first class of students on September 23, 1912.

The establishment of the institute through an endowment from the philanthropist's will was not without a share of intrigue, twice placing his plans in jeopardy. The first incident occurred in 1896, upon the death of Rice's second wife, Elizabeth.

For unknown reasons, Elizabeth declared herself and her husband to be residents of Texas, a community property state, which meant that she could bequeath half of their shared assets as she wished. Subsequently, she drew up a new will on her deathbed without William's knowledge and empowered her executor, attorney Orren Holt, to distribute those shared assets as per her direction. William Rice contested the will on the premise that neither he nor his wife were residents of Texas, realizing that her new will would significantly reduce the endowment available for the establishment of the institute.

During the probate and subsequent challenge to Eliza-

beth's will, William Rice died suddenly under mysterious circumstances. Charlie Jones, Rice's valet, and Albert Patrick, an attorney hired by Orren Holt to assist with the residency questions surrounding the probate of Elizabeth's will, were arrested, tried, and, after a lengthy, much-publicized trial, convicted of murder and forgery.

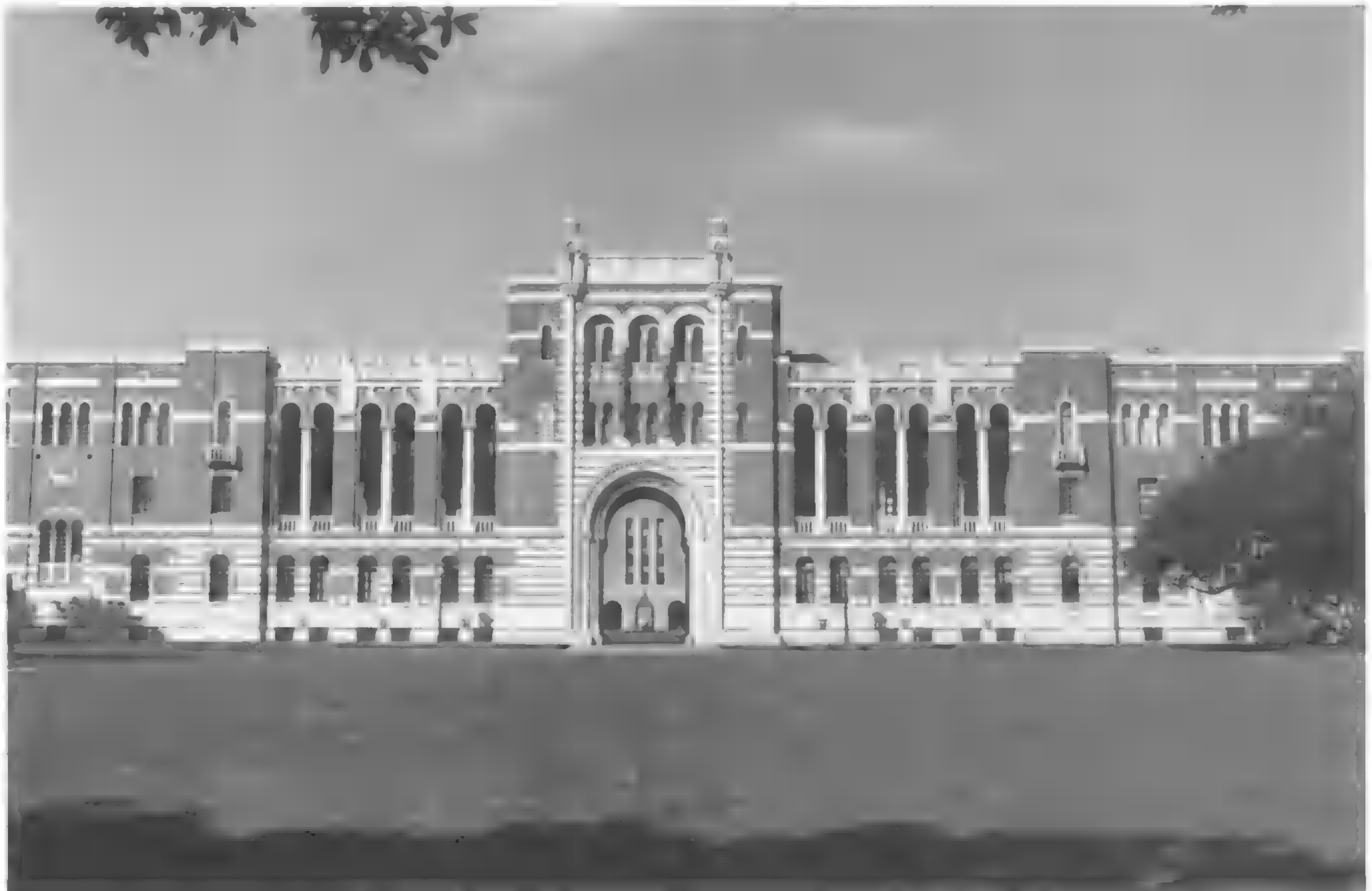
Patrick had forged a new will supposedly signed by William Rice, naming himself as the primary recipient of the inheritance; in coercion with Patrick, Jones had administered mercury pills to Rice in an attempt to kill him slowly. Then, when faced with the deficit of a large sum of money due to an unexpected business loss incurred by Rice, Jones murdered his employer with chloroform on September 23, 1900.

Eventually, an out-of-court settlement was reached in regard to Elizabeth's will; after all legal fees, commissions, taxes, and actual bequests were dispensed from both wills, the Institute was left with an initial endowment of \$4,631,259.08. The original board of trustees invested funds carefully and by 1910, the endowment had increased to more than \$7 million.

In January 1907, the search for the institute's first president commenced. Recommendations were received from institutions and individuals all over the United States; after one year, Dr. Edgar Odell Lovett, a professor of mathematics from Princeton, was named as president. Dr. Lovett's vision for Rice Institute, best found in his own words, remains an integral part of the University's mission today: "in striving with their help to combine in its personality those elements—largeness of mind, strength of character, determined purpose, fire of genius, devoted loyalty . . . from its walls shall go forth a continuous column of men trained in the highest degree, equipped in the largest way, for positions of trust in the public service, for commanding careers in the affairs of the world."

In order to study the design and operation of other renowned institutions of higher education, the board of trustees approved a request to send Lovett on a tour of schools throughout Europe and Asia. The importance of this trip was indisputable; not only did Lovett serve as an ambassador from the United States and as the first representative of Rice Institute at international conferences, but he also made important contacts around the world from which the institute would profit in the areas of faculty recruitment and academic support.

In 1911, construction of the institute began with the administration building. Lovett Hall, as it is now known, included classrooms, professorial and administrative offices, studies, lounges, and libraries. The president's office, located high above the building over a 30-foot sal-



*Rice University*

lyport, inspired the following limerick by Hubert Bray, a mathematics professor at Rice:

A great man is Edgar O. Lovett.  
His office has nothing above it.  
It is four stories high,  
As close to the sky,  
As William Ward Watkin could shove it.

The initial faculty complement, selected by the president himself, as culled from outstanding professors at universities and educational institutions throughout the United States and the entire world. Professors were recruited from Cambridge, Heidelberg, Harvard, British Columbia, and Yale. The mathematician recruited by Lovett, Griffith C. Evans, was recommended to the Institute by the Italian mathematician Volterra.

The salaries paid in 1912 were comparable to Harvard. Professors earned \$4,000 to \$6,000 annually; assistant professors earned \$1,200 to \$3,660; instructors were paid \$900 to \$1,500. The president's salary was \$10,000, plus lodging.

Academic excellence was high among Edgar Lovett's priorities for the institute, and those standards of excellence remain in place today. According to 1993–94 statistics, over two-thirds of Rice students graduate in the fifth percentile of their high school classes.

In pursuit of these academic ideals, Lovett set into place fairly difficult admission requirements as well as a rigorous course of required study for all incoming students. He was determined to gear the institute's curriculum in the direction of generally recognized and accepted university standards.

Incoming freshmen requirements consisted of a high-school certificate of graduation or successful completion of entrance examinations, character references, and 14 high school units. All students were required to take chemistry, English, German, mathematics, and physics. The infamous "Math 100" was initiated as a requirement, consisting of advanced algebra, analytical geometry, and trigonometry, with calculus being added to the course description during the 1920s. As a result of the rigorous requirements and inadequate preparation in high school, approximately 20 percent of the first fresh-



man class had failed so many of their subjects that they were asked to withdraw.

Although women were welcome at the institute—the charter directed that both sexes should attend—Lovett and a few of the faculty members felt some discomfort at having women in their classes, no doubt due to their own past experiences of all-male classes and separate educational facilities for women. During the first year of the institute's opening, classes were separated by gender. Women were to be off of the campus grounds by 5:00 P.M. Such was the concern about the sexes mingling that even the available benches weren't placed in any shady spots where a couple might be tempted to linger.

In the continued pursuit of academic excellence, an honor code was established at Rice almost immediately, as the president observed the codes successfully maintained at Princeton University and the University of Virginia. The honor code remains intact today with few modifications. The responsibility for upholding the code lies with the students; it is self-monitored and policed.

Initially, Rice offered only a bachelor of the arts and fifth-year degrees in engineering and architecture. Since that time, Rice has expanded its degree offerings to cover more than 15 different degrees and 42 areas of study.

Mirroring Lovett's concern with fostering academic excellence alongside social development, student clubs were established but not as offshoots of national organizations. Lovett forbade the establishment of social fraternities and sororities; instead, the students created their own organizations. Literary societies, the Rice band, the first student newspaper, and the first yearbook were in place by 1916.

As directed specifically in William Marshall Rice's endowment and the Rice Institute's charter, a public library was to be created. In 1915 President Lovett selected a library committee, comprised of faculty members and chairman Griffith Evans. The library budget was \$10,000 in 1913. The facility itself was housed in varying areas including the administration building; Fondren Library, as it is known today, occupies its own building and boasts holdings of 1.5 million books in addition to 1.8 million microform titles; 13,100 periodicals; and 16,000 records, tapes, and CDs.

The advent of World War I in April 1917 brought a militaristic turn to life at the Rice Institute. The administration petitioned and received permission to establish a unit of the Reserve Officers' Training Corps. All men and women were required to participate in military exercises; all had to wear uniforms and engage in physical training. The once fairly lax schedule of the Rice student was severely restricted; his or her day began with a room inspection at 6:15 A.M. and concluded with taps and "lights out" at 11:00 P.M. with the entire timespan between carefully regulated and planned.

The 1917 Rice catalog states, "It thus appears that as far as may be consistent with the university programme

of the Rice Institute, the conduct of the life of the place, including that of the campus and the residential halls, will be under military regulations, certainly as long as the war continues." Dissatisfaction with the military lifestyle mounted; in November, the student newspaper began printing letters of complaint and protest, their subjects ranging from the poor quality of the "mess hall" food to restrictions on free movement and access to problems within the operation and implementation of the ROTC program.

An underground publication, entitled *Tape*, appeared in early spring of 1917, leading to a rebellion and an eventual meeting of a representative group of students with President Lovett and the board of trustees. Changes to the original regulations were discussed and an agreement reached between the groups, although differences and a degree of dissatisfaction remained until the war ended in November 1918. One positive development from this "rebellion" was the organization of Rice's Student Association including a Student Council, the first governing body formed by and for the students.

The 1920s brought attention to other concerns of the institute, including finances and the overcrowded conditions on the campus. Proposals were introduced to charge tuition and limit enrollments, and public pleas were made for donations. Rice's economic plight remained much the same until the early 1930s, when cost-saving measures were introduced such as reducing faculty salaries, limiting enrollments, required on-campus residency for one year for each male student, and the initiation of student association membership fees.

In 1934, Eugene L. Bender bequeathed \$200,000 to Rice Institute, helping to alleviate the financial difficulties. Other funds in the form of gifts and assets such as the Rancor Oil Field delayed the move to charge tuition until February 1966, at which time the Texas Court of Civil Appeals upheld the decision of the lower court, that being to enable Rice to charge tuition and also to admit students without regard to color.

The second president of Rice, William Vermillion Houston, was selected after a search from 1941 to 1945, with the board examining at least 20 candidates. Lovett stepped down from the presidency, citing health reasons, but retaining the title of president emeritus.

Dr. Houston's management style was unlike the previous president's, and the faculty were pleasantly surprised at the active role he took in visiting with them in their offices across the campus, discussing their problems and concerns, and gathering information. The new president also solicited the faculty's opinions as to the nomination of new professors to fill the rapidly expanding needs of the institute. A superior faculty complement was seen as key to producing well-prepared and educated Rice graduates, and Dr. Houston placed a high priority on this goal. Despite the fact that Houston was the president, he never left behind his first love, that of research in physics. A



laboratory was created next to his office in Lovett Hall, where the professor-president could pursue his scientific interests whenever he wished.

The residential college system, established in 1957, was part of President Lovett's vision for Rice; however, the system wasn't established until well into the second president's tenure. The college system was to emulate Princeton by making the educational experience less formal, with colleges acting as small communities within the larger community of the university.

Initially, only four residential colleges existed; the total number has double to eight coeducational colleges, overseen by a faculty master and associates. The associates act as advisors and participate in the functions of their respective colleges, striving to encourage self-discipline, intellectual growth and development, and fellowship among the students.

Each college was equipped with a dining hall and public rooms as well as private living space for approximately 215 students. All first-year students were assigned a room in one of the eight colleges; this rule remains in force today.

Although the goals of the original colleges were never realized to their full potential, the colleges have proven to be successful in the overall mission of Rice University.

By the end of the 1950s, it appeared that Rice's university status would become a reality, as the activities and status of the institute were more fitting to a university than what was defined as an "institute." Despite some opposition from a small number of alumni and students, the Rice Institute became known as William Marsh Rice University, effective July 1, 1960.

In 1960, Dr. Houston resigned his presidency due to illness. The third president of Rice, Dr. Kenneth S. Pitzer, was appointed in 1961. His plans for Rice included increased attention to the graduate school, upgraded quality of faculty, a satisfactory method of evaluating the faculty's performance, improved facilities, and an increase in the undergraduate enrollment.

As seemed to be the sign of the times, an aura of dissatisfaction with the educational quality of Rice arose. Overemphasis was placed on good grades, the students complained, and an apathy existed as to learning in general. Some faculty members voiced their agreement with the students' criticisms, and the subcommittee on the program on undergraduate instruction of the academic planning committee reported that Rice's manner of grading seemed to demoralize the student population.

Faculty were encouraged to examine the performance of their students more carefully, as well as to review course workloads and content of their freshman and sophomore sections. Despite various attempts at changing methods of evaluation, the rigorous grading system remained in place and the high academic standards were upheld.

The question of charging tuition raised its head once again the decade of the 1960s. Dr. Pitzer proposed long-range plans such as the creation of new housing units and the establishment of law and business administration schools, none of which could be accomplished without increased revenue and all of which were necessary for Rice's advancement. William Marsh Rice's goal of an endowed, free institution of higher education came to an end in the face of necessary expansion and progress.

**Further Reading:** For additional in-depth detail as to the preparation and opening of the Rice Institute (prior to 1915), *The Book of the Opening of the Rice Institute* (Houston, Texas: Rice Institute, 1915) is a well-documented, three-volume reference. Sanford Wilson Higginbotham's *Man, Science, Learning and Education* (Houston, Texas: William Marsh Rice University, 1963) illustrates the events and reprints the lectures given by such notables as Margaret Mead and Brand Blanshard at the semicentennial festival.

—Mary Jane Isles

# RUPRECHT KARLS UNIVERSITY

## (Heidelberg, Germany)

<b>Location:</b>	Heidelberg, State of Baden-Wurtemberg, Germany
<b>Description:</b>	A state university enrolling about 25,000 students in undergraduate and graduate schools.
<b>Information:</b>	Ruprecht-Karls-Universität Heidelberg Grabengasse 1 Postfach 10 57 60 69117 Heidelberg Germany (06221) 54-1

Heidelberg's Ruprecht Karls University, the oldest university in Germany, was named after two princes: Elector Ruprecht I, who founded the university in the fourteenth century, and Grand Duke Karl Friedrich of Baden, who reconstituted it in the nineteenth century. Since then, it has enjoyed an international reputation. Students from more than 90 countries have enrolled at Heidelberg University.

The Golden Bull of 1356, issued by Holy Roman Emperor Charles IV, had granted Ruprecht and his descendants full rights in the imperial electoral college. Thus, he was the most powerful of the secular electors and became a vigorous defender of the interests of the Holy Roman Empire in the west. After the election of two rival popes in 1378, European Christendom was divided into two hostile camps. Italian cardinals had elected Urban VI as pope, whereas the French had chosen Clement VII, who ruled from Avignon. Germany's spiritual and secular leaders supported Urban VI, who presided in Rome. Thus, Europe's center of higher education in the fourteenth century, the Sorbonne, refused to examine German students. As a consequence, Paris became an inhospitable city for German students and teachers. Ruprecht I recognized this crucial situation as an opportunity. He offered asylum and protection to German scholars fleeing Paris. In 1386 the council of electors agreed to found a *Studium Generale* in Heidelberg, modeled on that of Paris, in accordance with the instructions and privileges already granted in a papal bull of foundation of 1385. The Dutchman Marsilius von Inghen, one of the leading scholars of his day, who had been the head of the University of Paris, became the founding rector of the new university. Within a year of its foundation the university registered 570 students.

Ruprecht I and his successors had a strictly practical

interest in the university. In order to unite and consolidate the widely scattered Palatinate territories they needed an intellectual and cultural center. The university provided it by educating future ambassadors, counselors, judges, lawyers, and teachers. It also kept an unconditional allegiance to Rome, a tie which had brought the university theological and conciliar importance.

With the proclamation of the teachings of Martin Luther at court, in the city, and in the university by Elector Ottheinrich another major change occurred. The university was reformed from a stronghold of scholasticism into a Protestant state university. Its spirit was that of criticism and free research. Ottheinrich also supported the university library by collecting and donating books, leading to the renown of the *Biblioteca Palatina*.

Friedrich III, who succeeded Ottheinrich in the middle of the sixteenth century, favored Calvinism, and so the Palatinate reformed. Scholars from Switzerland, France, Denmark, and Holland found their religious belief professed only in Heidelberg, which came to be called "the Geneva of Germany." In his survey of the university's history, Diether Raff wrote:

Heidelberg became the first really international university on German territory and briefly played a similar role to that of Paris in the fourteenth century. The *Heidelberg Catechism* (1563) . . . carried the fame of the university out into the world wherever Calvin's teachings made an impact: to Holland, England, Scotland and finally to North America.

The Thirty Years' War halted this development. Heidelberg's city and university were on the verge of ruin. The library had given its treasures to the pope as spoils of war. The university, which was suspended between 1626 and 1629, became Catholic again and tried to win back some of its old reputation. But military actions of Louis XIV against the Palatinate in 1689 and 1693 devastated both the city and the university. The university was evacuated to Frankfurt and then in 1698 to Weinheim before it returned to Heidelberg in 1700. But it was not until 1728 that the university had a main building again. Called the Domus Wilhelmiana (after the elector of the period), it is now the Old University.

The material problems were accompanied by religious ones. A belated Counter-Reformation destroyed the hope of regaining the university's academic freedom. According to Raff, "Out of 28 chairs—occupied on the instructions of the [Jesuit] Order's superiors—a mere four were



*Ruprecht Karls University*

in Protestant hands by mid-century." Another blow was the electors' plan to develop their Mannheim Court into a center of intellectual and cultural life.

After the disappearance of the Holy Roman Empire under the influence of the French Revolution, the Palatinate with Heidelberg and Mannheim was assigned to Baden. Its ruler Karl Friedrich, who had been promoted from elector to grand duke by Napoléon in 1806, was an enlightened Lutheran who wanted to transform the former principalities into a unified nation. In 1803 he had proclaimed the famous Thirteenth Edict which stated that Heidelberg was the official university in his land. As Raff explained, "He invited poets, artists and scholars to his court and endowed his university—he had already declared himself rector *magnificentissimus*—with a modern, functional constitution." Since then, both the original

founding document of 1386 and the edict of 1803 are regarded together as charters of Heidelberg University, a view expressed in the double name Ruperto-Carola, Ruprecht Karls University.

From this time on "freedom of teaching" was the main principle at the university. Latin was replaced by German as the academic language in most disciplines. The first scholar to accept a chair was Friedrich Creuzer, a distinguished philologist from Marburg. Clemens Brentano also moved to Heidelberg which marked the beginning of the romantic movement there. With his friend Achim von Arnim, Brentano compiled Germany's best-known anthology of early German lyrical poetry, *Des Knaben Wunderhorn*, a collection whose influence can be seen in his own poetry and that of his friends. Joseph von Gorres, Friedrich Hölderlin, Joseph von Eichendorff, and Jean



Paul likewise discovered and praised the city with its incomparable natural surroundings.

Heidelberg also became a center for a particular form of southern German liberalism that attracted professors and students alike. A few hundred took part in the uprising at the Hambach Castle in 1832. Others joined in storming the Frankfurt Hauptwache in 1833. Students also enrolled in the student legion during the Baden Revolution where they fought to change the Reich's constitution. Four Heidelberg professors sat in the Frankfurt National Assembly and in the decades before 1871 the Liberals made the university the chief bulwark of the idea of unity in southwestern Germany.

The names of Robert Wilhelm Bunsen, Gustav Robert Kirchhoff, and Hermann Helmholtz are linked with the importance of natural sciences at Heidelberg University in the 1860s. Raff explains their contributions:

Bunsen and Kirchhoff discovered spectral analysis, opening up new avenues for scientific research, and Helmholtz fathered physiological optics and acoustics, the scientific theory of sound and colour perception and modern electricity theory.

When the university celebrated its 500th anniversary in 1886, its importance was beyond question.

World War I closed this period of intellectual and material wealth. The university recovered slowly from the intellectual isolation caused by the war. Only a minority was willing to continue the pursuit of intellectual freedom guaranteed in the constitution, continuing Heidelberg's liberal tradition as well as the spirit of sociologist Max Weber and poet Stefan George. This minority formed the "Association of University Professors loyal to the Constitution" (the Weimar Group), and laid the basis for the public's image of the university as a most progressive place with high intellectual standards.

In 1928 the university received a new set of lecture halls thanks to American benefactors whose involvement was initiated by Jacob Gould Schurman, U.S. ambassador to Germany from 1925 to 1930 and former student at Heidelberg. This "New University" with its motto "To the living spirit" substantially expanded the university's academic facilities.

However, the "lively mind" was soon extinguished with the coming to power of the National Socialists. Raff described the changes: "[The university was] now stripped of any autonomy and organized on the basis of allegiance to the Führer . . . The inscription over the New University portal had been altered to read 'To the German spirit,' humanism having yielded to nationalism." Minorities were excluded. Thirty-six percent of the full profes-

sors and 21 percent of other lecturers had been victimized by the regime. Raff continued:

The number of Jewish students was drastically reduced. In the summer of 1933 there were 180 still enrolled, but in the winter semester of 1936/37 only 24, and they had to suffer considerable restrictions and harassment. Similarly, in 1933 the National Socialists also expelled the students who had allegedly been "hostile to the Volk and the State" in the final years of the Weimar Republic.

After the war the university was closed by General Eisenhower's Proclamation No. 1 in April 1945. The New University, lecture halls, the university library, the Marstall refectory, and a number of scientific institutes were requisitioned by the Allied troops. But only three-and-a-half months after the occupation of Heidelberg, the medical school was reopened; by the beginning of the 1945 winter semester theology and some of the natural sciences were being taught. By January 1946 all other faculties had been reopened and by the summer of the same year 600,000 volumes dispersed during the war had been returned to the university library.

During the following decades the number of students increased immensely. In the mid-sixties the university faced the problems of a mass university. Before World War II the student population was never more than 4,000; by 1962 it was 10,900 and remained constant until 1970, then increased to 17,500 in 1975 and to 23,000 in 1981; since the winter term 1982/83 the number has been around 26,000. With the increase in enrollment came reorganizing and replacing the traditional process of decision making. The traditional 5 faculties were split into 18, each of which is administered by a faculty board and dean. New buildings were erected to meet the need for classroom and laboratory space in the university. Three large areas within the city can be singled out as university areas: the Old Town around University Square with adjoining areas to the east and west, the Bergheim district (where the teaching hospitals are located), and Neuenheim (where a new campus houses the natural sciences, the medical school and teaching hospitals, student halls of residence, and a large new refectory).

With these capacities the Ruprecht Karls University serves according to Raff both its "role as a place for free research and teaching, and as a state institution with a special responsibility to the public at large."

—Wolfgang Holtkamp

# RUTGERS: THE STATE UNIVERSITY OF NEW JERSEY

## (New Brunswick, New Jersey, U.S.A.)

**Location:** New Brunswick Campus is made up of five smaller campuses located on both sides of the Raritan River in New Brunswick and Piscataway. The campuses are connected by a free university bus system. Students can travel along campuses to take classes. Camden Campus is located at the foot of the Benjamin Franklin Bridge just across the river from the center-city Philadelphia; the campus is easily accessible by public and private transportation. Newark Campus is 15 minutes outside New York City by public transportation.

**Description:** A state university enrolling approximately 48,000 students in undergraduate, graduate, and professional schools. The 26 degree-granting divisions offer more than 10,000 courses in almost 100 major fields of study. The university has the honor of being one of the top public research universities in the country.

**Information:** Rutgers–New Brunswick Campus  
George Street  
New Brunswick, NJ 08903  
U.S.A.  
(908) 932-1766

Rutgers–Newark Campus  
Office of Communications  
249 University Ave.  
Newark, NJ 07102  
U.S.A.  
(201) 648-1766

Rutgers–Camden Campus  
311 N. Fifth Street  
Camden, NJ 08102  
U.S.A.  
(609) 225-1766

**Visiting:** A self-guided walking tour of the original New Brunswick colonial campus is available. Tours of the Camden and Newark campuses are also available. For more information, call the phone numbers above.

From a humble beginning as a struggling colonial college, and subsequent decades of challenges and setbacks, Rutgers has grown into a major state university system with more than 48,000 students on three campuses. Rut-

gers has an unique history as a colonial college, a land grant institution, and a state university—signifying the triple traditions of American higher education. Only Rutgers University can claim this triple distinction in the United States. Founded in 1766, Rutgers predates many of the Ivy League schools.

The circumstances leading up to the development of the college were far from ordinary. In 1755 one rebellious party of the discordant Dutch Reformed Church declared its determination “to plant a university or seminary, in the Province of New Jersey, for young men destined for study in the learned languages and in the liberal arts, and who are to be instructed in the philosophical sciences.”

Lacking any resources, and facing opposition from church authorities in the Netherlands, and from their local adversaries, these impassioned ministers relentlessly pursued their plan. They sought a charter for their college from successive governors of New Jersey but were rebuffed.

On November 10, 1766, William Franklin, the last colonial governor of New Jersey, granted their petition, and signed the charter, in the name of King George III of England, establishing Queen’s College. The college was established to train young men for the ministry in the Dutch Reformed Church, and named in honor of Charlotte of Mecklenburg, consort of King George III. (Queen’s college was the eighth institution of higher learning founded in the colonies.)

The battle was far from over. Even after the charter was granted in 1766, five years were to pass before the work of the college commenced. Although a board of trustees was established, they found problems with specific charter provisions and would not move on to establish the college. Another obstacle during this time was the occupation of New Brunswick by British troops.

One clergyman who took a leading role in the application for the charter and may be regarded as Queen’s College founder was the Reverend Jacob Rutsen Hardenbergh—a colonel in the New York militia. He was one of the school’s original trustees, serving in that capacity for 50 years. In 1785, he was elected the first president of Queen’s College.

A revised charter was sought and granted by Governor Franklin on March 20, 1770. In May 1771, the board of trustees voted to select New Brunswick, over rival towns, as the site of Queen’s College. Subsequently, modest funds were raised for the institution.

In November 1771, the first classes were held in a tavern in New Brunswick. The Sign of the Red Lion, on the corner of Albany and Neilson streets. The first, and for a





*Rutgers: The State University of New Jersey*

long time only tutor, at Queen's College was Frederick Frelinghuysen, stepson of the college's future president and nephew of Theodore, the clergyman-pioneer. Frederick was only 18 years old when he took on the teaching position. He had just received his bachelor of arts degree at Princeton, then known as the College of New Jersey.

In the beginning, the student body consisted of one sophomore, and a handful of freshmen. Frederick's task was to instruct students in the learned languages, liberal arts, and sciences. He was also expected to teach the English language grammatically. During these early years, the college developed as a classical liberal arts institution.

Queen's College held its first commencement on October 12, 1774. The Reverend Jacob Rutsen Hardenbergh chaired the graduation ceremony and gave a moving speech stating "that men of learning are of absolute

necessity and extensive advantages to society." The entire graduating class consisted of one Matthew Leydt, age 19.

The War for Independence cast a dark shadow on the destiny of the emerging Queen's College. In 1776, the college's tutor John Taylor joined the Revolutionary Army as a captain, and was followed by a number of his students. The actual location of the college shifted as General Howe pursued Washington through New Jersey. Many times classes were held sporadically in private homes around the New Brunswick area.

From the beginning, hard times haunted Queen's College. In 1793, the board of trustees considered merging with Princeton. The measure failed by one vote. By 1795, in need of both funds and tutors, the trustees contemplated moving the college to New York. In the end, they closed the school. After the trustees raised \$12,000 in 1807, they reopened the college.



One April 27, 1809, the cornerstone of the first building, Old Queen's, was laid by President Ira Condict. Original estimates called for the cost of \$12,000 but when the building was completed, the total cost was nearer \$30,000 and took 14 years to build. The building is considered one of the nation's finest examples of federal period architecture. (In 1976, Old Queen's was designated a national historic landmark.) When the elegant, three-story house was completed, it housed professors and their families, classrooms, a library, and chapel.

The War of 1812, and a depressed economy, dealt a crushing blow, forcing the college to close again. Colonel Henry Rutgers, an American military officer, philanthropist, and a public-spirited citizen, took an interest in Queen's College, wanting to turn the tide on its low academic and financial status. However, he felt the name "Queen's" was not appropriate to the patriot ideas he upheld.

In November 1825, amid a rebirth of the school, Queen's College petitioned the New Jersey legislature to change its name to Rutgers College in honor of the Colonel. This move occurred simultaneously with the election of Philip Milledoler as college president, the latter a pastor, and a personal friend of Rutgers. The legislature made the necessary amendments to the charter, and the octogenarian's name was given to the financially strapped college. At this point, Rutgers's donations had amounted to very little.

The honor may have been bestowed with a double intent: to recognize a prominent member of the Dutch Reformed Church (since he was then president of its board of corporation) and to share in the benefactions of a person whose generosity had long been known, and possibly could become enduring by gift or bequest. This last hope was not completely realized. Rutgers's known gifts, thereafter, included \$200 for the purchase of a bell to be hung in the new cupola on the college building. He also deposited a bond for \$5,000 with synod, with the stipulation that the interest be paid annually to the college in cash.

Since the Colonel was a landed magnate and contributor to numerous educational and religious projects, the synod and trustees expected that he might also use his considerable influence within the denomination. In fact, the adoption of the new name did have a significant impact since it symbolized the addition of a new group supporting the college. Originally, local men largely sustained Queen's College. Now, a powerful group from New York City, including Milledoler, Abraham Van Best, the Reverend John Knox, the Reverend Isaac Ferris, and others, gained prominent positions on the board of trustees. Their arrival brought additional resources to the school.

In 1841, the college catalogue announced the creation of a scientific or commercial course that allowed a student to select studies that had a direct bearing on his intended life purpose. Influenced earlier by Princeton and Union, Rutgers had made special provisions in 1810 for

special students interested in the study of science, but records indicate students did not choose this option. During the next two decades, the course attracted only a small number of students but it set the stage for the future land grant college.

Rutgers College experienced a burst of energy never seen before or equaled afterward during the decade following 1862. During that period, college assets increased fivefold, relations with the Dutch Church were practically severed, and the Rutgers Scientific School was established and designated the land grant college for New Jersey.

In July 1862, Congress offered 30,000 acres of public lands, or land scrip to each member of Congress for their respective states. The proceeds were to be invested as an endowment for the support of a college. The movement to secure the grant for Rutgers originated in the faculty by Professor Cook and Professor Murray. Murray's report to the trustees revealed that the New Jersey legislature had accepted the land grant in 1863 and would now apply the proceeds—estimates were up to \$160,000—to an existing college or a new institution.

Cook and Murray urged the trustees to seek the land grant designation since it would expand the offerings and facilities in the various areas of science. The response of the trustees was positive. They decided that the "Scientific Course of Study," approved back in 1810, should be established as a department in the college under the name of Rutgers Scientific School. Simultaneously, the trustees petitioned for the land grant designation.

Both Rutgers and Princeton University began an intensive campaign to win the grant. On February 23, President Campbell, Governor Vroom, and Professor Cook (the most active advocate) presented their case for Rutgers at a legislative hearing, along with the rival institutions of Princeton and the State Normal School at Trenton. The legislative committee responded in favor of Rutgers' request. Finally, the bill was signed by the governor on April 4, 1864, for the land grant college of New Jersey with departments of agriculture, engineering, and chemistry.

Most states offered financial assistance which supplemented the small income from land grant funds. Rutgers received no aid from the state. Although obtaining the grant was a worthy endeavor, since it offered a needed educational discipline, the grant curtailed the trustee's resources and may have impeded the college's growth for many decades.

In 1873, a faculty committee considered the formal development of graduate courses, but not until 1882 did the trustees approve an extensive list of faculty recommendations. To qualify for the master of arts or master of science degree, advanced students in residence were required to take approved courses, pass a comprehensive exam, and present an adequate thesis. A two-year course of study, including subjects in two similar disciplines, an

examination, and thesis could lead to the doctor of science or doctor of philosophy degree. The first Ph.D. was awarded in 1884.

The installation of President Merrill Edwards Gates in 1882 brought an era of student discipline, a strictly prescribed curriculum, and the establishment of an honors system to encourage students' independent reading and studying. He also espoused the formation of strong Christian character in students. During his tenure, the quality of the faculty vastly improved, the student body expanded, and academic standards were strengthened.

After World War I, a transformation swept across both America and Rutgers as experimentation and uncertainty permeated the air. By 1925, the institution had changed dramatically. Three major campuses had sprung up, several colleges were endowed with various degrees of autonomy, two distinct student bodies had formed, and trustees granted extensive responsibilities to special agencies for certain colleges.

Up until now, Rutgers was solely dedicated to the education of men. In 1918, the creation of the New Jersey College for Women—now Douglass College—shattered that tradition. As early as 1881, the faculty had proposed to the trustees that young women be admitted, but the request was turned down. Continued appeals were also later rejected by the trustees.

Mrs. Mabel S. Douglass, a Barnard graduate, took up the challenge of establishing a women's college, and worked with great fervor, despite financial setbacks. When personal afflictions caused her to withdraw from the movement, other organizations (State Grange, New Jersey Education Association, State Board of Education) lent their endorsements. At last, the Women's College became a department of the State University of New Jersey in 1918.

James Dickson Carr became the first African American to graduate from Rutgers in 1892. He later became an assistant district attorney for New York City. Paul Robeson, the third African American in Rutgers' history, gave the valedictory address at the 1919 commencement. Robeson had been praised as possibly the greatest college football player of his time.

The swift development of the New Jersey College for Women, and the College of Agriculture (1921), brought an urgency to the bigger concern of developing an appropriate structure for the growing university. For almost five years, the president, the trustees, and the faculty bickered over these difficult issues. State relations, educational efficiency, and economy only made the issues more complex. Decisions also had to be reached on the role of the faculty in the conduct of the institution.

Sharp disagreements surfaced over basic principles leading to the growth of two factions. One faction, led by Leonor F. Loree, lobbied for a "businesslike" plan of

organization, and greater seeking of public support. The opposing faction, led by President Demarest, argued for traditional practices in the academic community. He also preferred adherence to established state policies. After a series of committees, clashing viewpoints, behind-the-scenes activities, proposed and defeated plans, the board of trustees agreed to ■ faculty submission with some modifications.

Accepted was the faculty's proposal for colleges of arts and sciences, agriculture, women, engineering, and a school of education. The proposal for a school of physical and biological sciences, and graduate school were rejected. At the June 14, 1924, commencement, the title of Rutgers University, as authorized by the trustees, was first employed.

In 1945, the colleges and schools of Rutgers were collectively designated the State University of New Jersey by legislature. The same controversy and opposition that had characterized other changes in Rutgers history applied to this latter achievement. Although more turbulent times were still ahead, additional university achievements continued.

By 1946 Rutgers University and the University of Newark merged. Soon after, in 1950, Rutgers merged with the College of South Jersey and its school of law to create the Camden campus. In 1961, the University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School—was founded. Formerly, it was known as Rutgers Medical School.

President Edward J. Bloustein's goal to make Rutgers one of the nation's top universities was achieved in 1989, when Rutgers was invited to join the Association of American Universities (AAU), the most prestigious body of research universities in North America.

In 1990, Rutgers conferred its 250,000th degree, and in 1991, Rutgers marked its 225th anniversary.

From a humble colonial college, fighting off decades of financial woe, setbacks, and a heritage of internal discontent, the university has fared well. Today, Rutgers' forefathers would agree with pride that the accomplishments achieved in the past will continue well into the next century.

**Further Reading:** Richard P. McCormick's *Rutgers: A Bicentennial History* (New Brunswick, New Jersey: Rutgers University Press, 1966) provides an extensive account of the founding of the university. Another lengthy account will be found in *Bicentennial Year, The Story of a Rutgers Celebration* by George H. Holsten Jr. (New Brunswick, New Jersey: Rutgers University Press, 1968).

—Darlene Maciuba-Koppel



# ST. JOHN'S COLLEGE

## (Annapolis, Maryland, and Santa Fe, New Mexico, U.S.A.)

**Location:** The Maryland campus is located in the heart of Annapolis, the state capital, on the Chesapeake Bay. The Santa Fe campus sits at 7,300 feet above sea level in the Sangre de Cristo Mountains in north-central New Mexico.

**Description:** Founded in 1696 as King William's School, chartered in 1784 as St. John's College, it offers ■ unique all-required curriculum based on the reading and discussion of works of western civilization.

**Information:** St. John's College  
Annapolis, MD 21401  
U.S.A.  
(410) 263-2371

St. John's College  
Santa Fe, NM 87501  
U.S.A.  
(505) 982-3691

In 1632, King Charles I of England gave Cecil Calvert, the second Lord Baltimore, ■ small piece of land from the state of Virginia along the Potomac River. With this parcel, Calvert founded the state of Maryland. Thirty-nine years later Calvert attempted to charter a state college but was prevented from doing so by the Protestant-run lower house of the Maryland General Assembly who feared that Calvert, a Catholic, would turn the school into ■ Catholic institution. Finally, in the 1690s, Maryland's royal governor, Francis Nicholson, a member of the Church of England, convinced the legislature to open ■ "free" school. In fact, the legislature's intention was to open several such schools under the Petitionary Act for Free Schools. The word "free" refers not to the tuition policy, but to the school's goal to ensure its students freedom through education. Founded as King William's School, the institution called for basic instruction in Latin, Greek, and writing, with the expectation that its students would go on to study theology at the College of William and Mary in Virginia. Classes were held in a brick building near the State House in Annapolis.

The school struggled financially. Other than ■ 1732 endowment from Governor Benedict Leonard Calvert, the school did not receive any money, save from tuition. Many associated with the school found this situation maddening, knowing that the state was reaping profits

from the growth and sale of tobacco. The assembly eventually approved the trustees' request to sell certain school properties that were not generating income; however, the trustees delayed the sale, pending another action circulating through the legislature.

Pressure was mounting to found two state colleges, one in Annapolis and another on Maryland's eastern shore. Other legislators wanted the state to open ■ series of free schools; they blocked each attempt to charter the two colleges. In the meantime, young men were leaving the state to attend colleges in Pennsylvania and Virginia. Finally, in 1784, after seven attempts, King William's School was chartered as St. John's College. However, the first students would not arrive for another five years as buildings were readied. (Two years earlier, in 1782, Washington College was opened in Chestertown on Maryland's eastern shore.)

The state donated an unfinished governor's mansion and four surrounding acres. Now known as McDowell Hall, the structure was originally built by Governor Thomas Bladen in 1742. Construction costs quickly ran over budget, and Bladen was forced to abandon the project when the legislature refused to allocate more funds. Locals called the building Bladen's Folly. It suffered from water damage and was neglected for several decades. The board of visitors and governors of the college hired architect Joseph Clark, who designed the State House, to refurbish the building. Renamed McDowell Hall after the first president of St. John's College, the building is the nation's third oldest academic building in continuous use.

Four signers of the Declaration of Independence were among the college's founders: William Paca, Charles Carroll of Carrollton, Thomas Stone, and Samuel Chase. Paca was also the governor of Maryland at the time, and his name can be found on the charter. In spite of the presence of Jesuits, Presbyterians, Anabaptists, Episcopalians, Methodists, and Quakers on the founding board, St. John's charter states that students are to be admitted "without requiring or enforcing any religious or civil test."

The source of the college's name is open to debate. One assumption is that it was borrowed from the St. John's College of Cambridge University. Another theory is that the name has its origins in Freemasonic fraternity. The college seal bears a Masonic symbol; both John the Baptist and John the Evangelist hold honored positions among the Masons, although the fraternity is not a sanctioned Christian organization. Today, the popular belief is that the school was named for John the Evangelist.

In their search for a college president, or principal, as the position was known at the time, the board of trustees





*St. John's Collge*

expressed a desire for "A Stranger" or a "Great Character from Europe." However, one particularly influential trustee, the Reverend William Smith, one of the founders of the Protestant Episcopal Church in the United States, suggested a school of such decidedly American origins and character should be led by an American. Thus the board chose John McDowell in 1790. McDowell had come to St. John's the previous year as a professor of mathematics. Born and raised on a farm in Cumberland County, Pennsylvania, McDowell attended the College of Philadelphia (which would become the University of Pennsylvania) and practiced law for five years.

Under McDowell's presidency, the college gradually grew in reputation. By the beginning of the nineteenth century, 105 students had graduated, including Francis Scott Key, the author of the "Star-Spangled Banner"; George Washington Park Custis, stepgrandson of George Washington; and Fairfax and Lawrence Washington, two of the president's nephews. Other graduates would go on to serve as governors, judges, and members of the Maryland state legislature. However, at the turn of century the Maryland house of delegates voted to withdraw its funding, citing the school's neglect of impoverished students. This effectively put an end to the plan to join St. John's and Washington Colleges as the state's first university.

Weary of the constant battle for money, McDowell was easily wooed away by the University of Pennsylvania in 1801. He returned briefly in 1815, much to his regret. St. John's closed its doors in 1817 and then reopened the following year with alumni financial support. Led by Key and Robert Goldsborough, the alumni society was established in the 1820s.

In 1831, the dynamic presidency of Hector Humphreys began, bringing with it a revamping of the curriculum and the construction of two more academic buildings: Humphreys Hall and Pinkney Hall; and two faculty houses: Chase-Stone and Paca-Carroll. During his 26-year tenure, Humphreys added the instruction of modern science, increased the enrollment to 100 students, and brought the library collection to over 4,000 volumes.

St. John's was forced to close again during the Civil War. Most of its students set their studies aside to become soldiers in armies of the Union or the Confederacy. The Union Army used school property to set up a hospital, a way station, and barracks. The war years left the college ravaged. Although the federal government granted the school \$4,666 in aid, the trustees were forced to raise an additional \$11,500 to make the necessary repairs. St. John's reopened in 1866 with Dr. Henry Barnard as president. Barnard left after only one year to become the nation's first commissioner of education. He was succeeded by Dr. James C. Welling who increased the student body from 90 to 250. Welling left in 1870 to join the faculty of Princeton University. In 1884, a compulsory military program was initiated. It was during this period that extracurricular activities appeared for the first time in the

form of a campus newspaper, literary societies, and athletics. The curriculum was divided between a study of the classics and technical courses in engineering and mining. Although other schools were offering elective courses, St. John's did not. Perhaps it was this fact that did little to improve the college's academic and financial standings.

Dr. Thomas Fell moved into the presidency in 1886 and established a prep school for the Naval Academy at Annapolis. By 1903, the state of Maryland was again making contributions to St. John's, which allowed for the building of Woodward Hall in 1899, Randall Hall in 1903, and a gymnasium in 1910. In 1905, the quality of the cadet corps influenced the U.S. War Department to name St. John's to its list of six leading military colleges. However, by the close of World War I, the nature of American education was changing, even at St. John's where military training was abolished, and electives were offered for the first time.

The board's decision to invest heavily in real estate during the 1920s came to a disastrous conclusion with the stock market crash and ensuing economic depression. Several of the college's buildings had been mortgaged, and operating funds were virtually nonexistent. In desperation, the trustees brought two academic reformers, Stringfellow Barr and Scott Buchanan, to the campus in 1937 with the charge to revamp the curriculum in such a way that it would attract new students. Barr would then serve as the college's president from 1937 to 1946, while Buchanan held the office of dean. Barr and Buchanan introduced a discussion group style of study based on the Great Books of the Western World, a program derived from the philosophies of Robert M. Hutchins, president of University of Chicago. The unified, all-required, no-electives curriculum, which abolished departments and majors, attracted national attention. Among the new recruits was the college's first African-American student, Martin A. Dyer, who enrolled in 1948.

Richard Weigle took over as president in 1949, and, during his 30-year tenure, the school's reputation grew within educational circles. Women were admitted to St. John's College in 1951. New dormitories were built. Mellon Hall and Francis Scott Key Auditorium were opened in 1959. By the 1960s the college was faced with the need to expand its physical plant to accommodate the demand for admissions. Fortunately, a donation of land at the foot of the Sangre de Cristo Mountains in Santa Fe, New Mexico, by John and Faith Meem allowed the board to open a second campus in 1964. Weigle headed both campuses until his retirement in 1980. Each campus is now headed by its own president. The school as a whole is governed by a board of visitors and governors.

Today, the curriculum is overseen by the joint committee on instruction. It continues to be a non-elective, interdisciplinary program based upon the reading and discussion of 130 great books on topics such as literature, philosophy, theology, political theory, history, and econom-

ics. Students are encouraged to attend classes on both campuses. Transfers are allowed at the end of each semester.

St. John's approach to education remains unique. There are no lecture courses, no text books, no written finals, and no departments. There are no professors. Faculty members are referred to as tutors. In the classes, students discuss the Great Books, which are at the heart of the college's curriculum, in chronological order. The first year is devoted to Greek authors; the second year explores works from Roman, Medieval, and Renaissance periods; third year considers books of the seventeenth and eighteenth centuries; and the fourth year covers the nineteenth and twentieth centuries.

St. John's Maryland campus, situated in the historic town of Annapolis, boasts several spots of historical significance. Admissions, alumni, and administrative offices are housed in the Carroll Barrister, once the residence of Charles Carroll, the Barrister, a cousin of the signer of the Declaration of Independence and St. John's founding board member of the same name. Charles Carroll, the Barrister, was the principal writer for the Declaration of the Delegates of Maryland, adopted on July 6, 1776. This document would eventually become the first 45 articles of the Maryland Constitution, which Carroll also helped to write. The last of the Revolutionary period "liberty trees," so named because of the meetings frequently held under its branches by the American colonists, also stands on the St. John's campus. During the U.S. bicentennial celebration, the tree, a tulip poplar, was officially deemed to be over 200 years old. Forestry experts estimate its exact age to be somewhere in the realm of 400 years.

St. John's library has its origins in the first public library in the United States, founded in Annapolis by the Reverend Thomas, an Anglican clergyman who created some 111 libraries in England and the American colonies. According to historical accounts, when Sir Tho-

mas Lawrence, the secretary of Maryland, visited the future Queen Anne to ask permission to name Maryland's new capital in her honor, Bray accompanied him in the hope of securing financial support for the building of a library there. The future queen gave Bray 40 guineas (the equivalent of 44 pounds) with which he was able to establish a library with 1,095 volumes in the new capital. In 1696, the state assembly moved the library to the new state house. When the building burned in 1704, the books were moved to King William's where they were held when the school became St. John's College. Two hundred and eleven of the books remain, seven in St. John's library, the balance in the Maryland Hall of Records in Annapolis.

In the June 17, 1996, issue of *National Review*, William F. Buckley Jr. reflected on his experience as a commencement speaker at St. John's College: "What follows is a lullaby to the forlorn on the theme of: Believe it or not, some American students learn . . . What St. John's does is go exactly in the opposite direction of what virtually everybody else is doing . . . Did you ever see a dream walking? Go to St. John's, Annapolis."

**Further Reading:** *St. John's "For Ever,"* a special issue of the *St. John's Review* (Annapolis, Maryland), volume 40, number 2, 1990-91, is a collection of essays by Charlotte Fletcher, librarian of St. John's College from 1944 to 1980. The essays cover the early colonial years of Maryland, the struggle to charter a college, and the tenure of John McDowell, St. John's first president. For comments on the current situation, see "St. John's Clings to Classics" in *The New York Times* (January 10, 1993, p. EL18).

—Mary McNulty



# SEOUL NATIONAL UNIVERSITY

## (Seoul, Republic of Korea)

**Location:** Seoul National University's main campus, the Kwanak Campus, is situated approximately ten miles from Seoul, in the southern outskirts of the capital city at the foot of majestic Kwanak Mountain. The university's medical campus, the Yongon Campus, is located in the center of downtown Seoul, while Suwon Campus, the agricultural campus, is located about 24 miles south of Seoul in Suwon City. All three campuses are easily reached by subway; the Kwanak Campus is accessed by SNU Station, Line 2; the Yongon Campus is accessed by Hehwa Station, Line 4; and the Suwon Campus is accessed by Suwon Station, Line 3.

**Description:** A state-sponsored major teaching and research center comprised of 16 colleges, 4 graduate schools, and 71 research institutes and supporting facilities, with a total enrollment of approximately 28,000 (20,000 at the undergraduate level; 8,000 at the graduate level). With 1,400 faculty members, the faculty to student ratio is 20:1. The ratio of men to women is almost 4:1.

**Information:** Office of International Affairs  
Seoul National University  
Kwan-Ak-Gu  
Shillim-Dong San 56-1 (151-742)  
Seoul  
Korea  
(0)2 880 8633

Although efforts to educate the general public did not begin until late in the nineteenth century in Korea, education was always highly valued. The influence of Confucianism is largely responsible for this reverence; according to Confucian tradition only high-level scholars who had studied and passed rigorous examinations in the Confucian classics could attain positions within the government. Since social and economic power were achieved almost exclusively through the acquisition of these government jobs, the importance of scholarship was tantamount to success, if not survival.

Historically, access to education was primarily limited to male children of the upper class who were taught at Buddhist temples. The Koryo Dynasty (936–1392) promoted classes to teach the children of the aristocracy the Confucian classics. State schools in the capital and prov-

inces, established during the Choson Dynasty (1392–1910), eventually began to compete with the growing number of private academies established by out-of-favor scholars and former government officials. However, a tradition-based bias persisted; women were still excluded from formal schooling and Chinese texts and characters were still emphasized.

Beginning in 1895, a western-style program of education was set in place—a regular system of primary and middle schools, teacher training colleges, foreign language institutes, technical and commercial colleges, medical school, and other professional training institutes was established and greater importance accorded the Korean language in schools. Christian Protestant missionaries greatly influenced the direction of education in Korea. These missionaries opened elementary and secondary schools and three colleges, but it was their invitation to school children of all genders and classes that signified real progress.

Although some pressure for educational reform came from the Japanese in the mid-1890s, no substantial advances occurred during the period in which Japan ruled the country, from 1910 to 1945; education was directed at the Japanese living there, which meant, of course, that all classes were taught in Japanese. Liberation from Japan in 1945 allowed Korea the opportunity to begin to address educational policies that would reflect its new independence, but this was no easy task. According to Jongchol Kim, author of *Some Essays and Thoughts on Korean Education*, "The status of higher education at the time of Korean Liberation from Japanese rule is shrouded with obscurity. According to the official statistics, there were 19 institutions of higher learning in the south with a total of 7,819 student enrollments and 1,490 faculty members." A groundswell of public support for the expansion of institutions of higher learning eased the process somewhat.

For a brief three-year period from 1945 to 1948, the U.S. military government in Korea and the United Nations supervised the creation of a democratic educational system based on western models. The prime directives of this system, however, actually came from Korean nationals working on the newly organized Korean Committee on Education (organized in September 1945) and the Council of Education (November 1945). The resulting system, generally known as the 6-3-3-4 plan of school organization (six years of elementary school, three years of middle school, three years of high school, four years of college), most closely resembled that of the United States at the time.



*Seoul National University*

Although colleges and institutions of higher education already existed, the new republic lacked a national, state-operated university. Supporters hoped to combine Kyongsong Imperial University and nine other public and private colleges to create South Korea's first national university, but the leftist branch of both the faculty and the student body vehemently opposed such a move. Despite protests and organized strikes, some of which had violent moments, the state-operated Seoul National University (SNU) and its 491 faculty members opened its

doors to 4,500 students on October 15, 1946. Only a few months later the first graduation exercise took place on March 6, 1947, when 34 students graduated from SNU medical college.

Throughout its history, the university has reorganized several times with the goal of providing the best opportunities for learning to its students. The 1948 constitution guaranteed Koreans the right to education and the development of a national university symbolized the new government's democratic vision for its people. The

Education Act of 1949 and later the Charter of National Education listed the country's educational goals, including enrolling all children in elementary schools and emphasizing teacher training and scientific and technological education. State-operated and privately run educational institutions were to be closely monitored by the Ministry of Education, the central administrative organization of education in Korea, first organized in 1948. Literacy courses became compulsory. The Korean War (1950–53) arrested the government's efforts to stamp out illiteracy, but once the war was over, the development of both education in general and the national university continued.

Politics again interfered during the 1960s. The student revolt of 1960 powered the demonstrations against President Syngman Rhee that eventually lead to his downfall, and the ensuing military government (1961–63) enacted numerous radical reforms to the educational system, most of which were nullified once that regime passed. University organizers recognized the need to establish long-term goals and plans for SNU, including the reorganization of component colleges and schools within the university and raising its standards for faculty members. In addition, various organizations were created to address the diverse needs of students, faculty, and alumni, as well as the public. A newspaper was founded in 1952, and nine years later, a press was created to help university faculty members publish their work. Today, the university newspaper has a circulation of approximately 30,000, and the SNU Press has its own printing and typesetting facilities and has published more than 600 books.

Since 1963 the Ministry of Education has allocated research grants to individual scholars and university departments or projects. At the time, SNU was receiving almost a quarter of the grant allocated to public and private educational institutions. The SNU Development Foundation was established in 1991 to finance student scholarships, research and charitable projects, and cultural and athletic activities on campus. The foundation solicits contributions from alumni, corporations, and others.

Occupying approximately 2.5 square miles, the university's main campus, Kwanak Campus, offers its students the amenities typical to large schools—athletic facilities, recreation centers, dormitories, and dining halls—and houses most of the administrative offices of both the school and student/student-related organizations. In addition to all of these facilities, the Kwanak Campus is home to the university library, the largest library in East Asia, with a collection of 1.6 million volumes.

The university library consists of three collections, older texts, contemporary texts, and special texts. The bulk of the older texts deal with law and East Asian studies and primarily came from the Kyung Sung Imperial University. The contemporary collection is composed of books and documents collected since 1945, including

8,000 periodicals. University library organizers hope to increase the collection each year until, by the year 2001, the collection will have 20,000 volumes. A database network connects the university library with other networks throughout the world, allowing library users to tap into on-line sources. One project that is currently in the works will connect the university library to all the other university libraries in the nation, making it the center for library research. Branch libraries operate at the other campuses, namely the colleges of law, medicine, and agriculture.

Once a part of the university library, but now independent, the Gyujeongguk Archives has the largest collection of classical texts in the nation, with 3,833 works. Among these are 175,000 ancient books, 50,000 rare documents, and 17,800 wooden printing plates, many of which have been declared national treasures. As such a precious resource is incredibly valuable to those in Korean and Asian studies, the archives are open to the public as well as SNU students and visiting scholars. Founded during the Chosun Dynasty in 1776 as part royal archive, part court library, and part policy research center, the entire collection was transferred to SNU in 1946 when the university was created. Since then, the collection has been cataloged, and in 1993, it was made into an independent library.

Completed in 1992, Seoul National University Museum exhibits talismans of archeological history, contemporary art, and folklore, among other subjects. The museum's holdings include over 100,000 archeological items of Paleolithic, Neolithic, and Bronze Ages, and rare artworks from the Three Kingdoms to the Chosun Dynasty to present day.

The Yongon Campus, located in the heart of Seoul's downtown, is home to SNU's medical school, research library institutes, and other organizations related to medical science. The college of medicine, the college of dentistry, the college of nursing, the graduate school of public health, and the university hospital are all located there. Twenty-four miles south of the capital city, in Suwon City, lies the agricultural campus. Students enrolled there in either the college of agriculture and life sciences or the college of veterinary medicine take advantage of an experimental farm and the veterinary hospital, complete with a livestock experiment station and modern facilities. An arboretum sprawls for nearly 111 square miles of the campus.

Competition is keen to enter SNU and the four other privately operated universities which together comprise the top five schools in South Korea—Yonsei, Korea, Ewha Women's, and Sogang. To qualify for consideration, applicants must have completed 12 years of school or the equivalent and have passed the Scholastic Aptitude Test (SAT). Applicants are screened for admission into SNU on the basis of their test scores on the SAT and entrance examinations given by the university in January of each year, as well as the quality of their high school



records and an interview with someone from the university. Students are admitted to a department or school (the university's 16 colleges are subdivided into these two categories). Students are expected to complete their studies within six years, although a one-year extension is granted to foreign students.

Tuition and fees in U.S. dollars range from \$2,300 to \$2,500 per year, plus another \$800 for books and living expenses. Scholarships are available.

—Elizabeth Taggart

# SMITH COLLEGE

## (Northampton, Massachusetts, U.S.A.)

**Location:** Ninety-three miles from Boston and 54 miles from Hartford, Connecticut; 125-acre campus in western Massachusetts located at the foot of the Berkshires with Amherst College and University of Massachusetts nearby.

**Description:** The largest private women's college in the United States with 2,600 students enrolled in 35 major fields of study, a member of the "Seven Sisters" women's colleges. The coeducational graduate school offers master's degrees in seven areas of study.

**Information:** Office of Admissions  
Northampton, MA 01063  
U.S.A.  
(413) 584-2500  
Fax (413) 585-2527

**Visiting:** Campus tours conducted by Smith College students are available through the admissions office. Contact the university at the address above.

During its early years, Smith College was recognized as the educator of the elite's daughters, as was Harvard for schooling the elite's sons. Today, the 125-acre campus designed by Frederick Law Olmsted maintains a student body of 2,600 from every state in the United States and 65 countries. The predominantly Protestant enrollees gave way to other faiths including Catholic, Buddhist, Muslim, Jewish, Christian Science, Hindu, and Quaker. It is the largest independent women's college in the country, with an endowment to match. Founded by Sophia Smith more than 124 years ago for the purpose of educating women to take a dynamic role in society, Smith College has surpassed its original aspiration.

Sophia Smith was born on August 27, 1796, in Hatfield, Massachusetts, the oldest daughter of seven children of Joseph and Lois (White) Smith. She was educated at Hatfield School, where boys were taught in the morning and girls in the afternoon. In 1836, when she was 40 years old, Smith became deaf, a condition which denied her social interaction and profoundly deepened her sensitive and introspective personality. Her father died the same year, leaving \$10,000 to each of his surviving children, all of whom remained unmarried and continued to live at the family home.

At age 65, Smith was the last of her family, and wanting to dispose wisely of her inheritance, she turned to her young Unitarian pastor, the Reverend John Morton Greene, for guidance. A graduate of Amherst College, Greene believed that education would be the salvation of mankind. Although anxious for spiritual advice and earthly direction, Smith's independent nature led her to refuse Greene's initial suggestion to bequeath her fortune to two local institutions of higher learning, Amherst and Mount Holyoke (Greene's wife's alma mater). Greene, aware that Vassar College had just been chartered, then suggested that Smith fund the first college for women in New England that would have the same high standards and stringent academic programs as colleges for men.

Greene then consulted with the presidents of Amherst, Harvard, Williams, and Yale. These educational leaders declared that offering women higher educational opportunities was a "dangerous experiment." Smith then decided to leave the bulk of her fortune to an institution for deaf-mutes. But seven years later, a bequest by John Clarke enabled the Clarke School for the Deaf to open in 1868 in nearby Northampton, and she felt obliged to bestow her legacy elsewhere. Greene then renewed his campaign for a women's college as the beneficiary for Smith's largess.

Smith determined that leaving her inheritance to establish a women's college was the best way for her to fulfill a moral obligation. She expressed in her will:

I hereby make the following provisions for the establishment and maintenance of an Institution for the higher education of young women, with the design to furnish for my own sex means and facilities for education equal to those which are afforded now in our colleges to young men. . . . It is my opinion that by the higher and more thoroughly Christian education of women, what are called their "wrongs" will be redressed, their wages will be adjusted, their weight of influence in reforming the evils of society will be greatly increased; as teachers, as writers, as mothers, as members of society, their power for good will be incalculably enlarged.

The type of college envisioned by Sophia Smith resembled many other old New England colleges in its religious orientation, with all education at the college "pervaded by the Spirit of Evangelical Christian Religion, [but] without giving preference to any sect or denomination."

With her consent, Reverend Greene presented the plans to Professors W.S. Tyler and Julius H. Seeyle for review. After their enthusiastic endorsement was



*Smith College*



obtained, Smith named the three to the board of trustees in her will. In ■ last revision of her will, shortly before her death from a stroke in 1870, she directed that the college be located in Northampton, a larger and more accessible town than Hatfield. Her bequest to the new women's college amounted to \$393,105.

After her death, Greene, Tyler, and another trustee, Professor Edwards A. Park of Andover, undertook ■ campaign for additional funds so that the new college would start off on ■ sound financial basis. Smith College, then, started out with approximately \$500,000 in principal, interest, and contributions.

Receiving its charter in 1871, Smith College then opened four years later. Sophia Smith's will also directed that no more than half of the bequest should go for building; the trustees agreed that they "had no desire to repeat the too common mistake of investing the greater part of their funds in brick and mortar." The trustees further stated that "the requirements of admissions will be substantially the same as at Harvard, Yale, Brown, Amherst, and other New-England Colleges." Although Smith College, and its suburban Philadelphia counterpart, Bryn Mawr College, had set stringent admission standards, without establishing preparatory departments to assist students who were insufficiently prepared (a common practice in other women's colleges of that era) they had difficulty in adhering to their lofty standards.

At ■ time when most people held narrow views of women's abilities and their suitable place in society, Sophia Smith showed not only concern for the particular needs of young women, but also faith in their still undeveloped powers. After outlining the subjects that continue to be the backbone of Smith's curriculum, Sophia Smith commented:

And in such other studies as coming times may develop or demand for the education of women and the progress of the race, I would have the education suited to the mental and physical wants of women. It is not my design to render my sex any less the feminine, but to develop as fully as may be the powers of womanhood and furnish women with the means of usefulness, happiness and honor now withheld from them.

Smith's first class, convened in 1875, was composed of 14 students and 6 faculty, under the direction of President Laureus Clark Seelye. College Hall, a Victorian Gothic building, served as the administrative and classroom building, and dominated the head of Northampton's Main Street. During the college's first two decades, it was not at all unusual for students in their 20s and 30s to be enrolled. Instead of a dormitory, students lived in a cottage where life was more familial than institutional. Thus began the "house" system that, with some modifications, the college still employs. For study and worship,

students used the town's extensive public library and various churches.

In his inaugural address, President Seelye laid down the school's educational policy. He declared that the admission standards were as high as those of the best colleges for men and that a truly liberal education would be fostered by ■ broad curriculum stressing the humanities, the fine arts, and the natural and social sciences. Some 15 years later, he remarked:

The college is not intended to fit woman for any particular sphere or profession but to develop by the most carefully devised means all her intellectual capacities, so that she may be ■ more perfect woman in any position.

Its small campus was planned to make the college part of what Reverend Greene called "the real practical life of a New England town, rather than a sequestered academic preserve."

A major difference between Smith and other women's colleges was in the emphasis on the classics, particularly Greek and Latin. The primary rationale for this curriculum rests in the ancient languages' cultural value. In an era in which men's education was focused increasingly on vocational studies, women's education concentrated on instilling cultural pursuits. Accordingly, Smith College started with ■ well-equipped department of fine arts, and with a strong emphasis on English literature.

Seelye served Smith College for 35 years. During his administration, the college prospered: its assets grew from the original bequest of \$400,000 to more than \$3 million; its faculty to 122; its student body to 1,635; and its buildings to 35. Alumnae Gymnasium was opened, and was the site of the first women's basketball game. The facility now houses the College Archives and is connected to the William Allan Neilson Library. Currently, the library consists of 1.3 million items consisting of ■ main collection, rare book rooms, nonprint resources center and women's history archive. The Smith College Museum hosts an abundant collection of 24,000 pieces from ancient times to the present, with concentration on nineteenth- and twentieth-century American and European art. Mendenhall Center for the Performing Arts comprises two theaters, a TV studio, dance studios, recital hall, practice rooms, and an electronic music studio. Sage Hall, home of Smith's music department, houses a concert hall that is considered one of New England's finest. A Japanese garden, greenhouse, and arboretum add architectural diversion. Paradise Pond, with its Japanese teahouse, waterfall, and island accessible by rowboat has been a favorite of Smith students for years. Overall, the campus architecture consists of neo-Gothic, neo-Romanesque and modern architecture, coexisting with ■ pleasing mix of clapboard houses and ivy-covered buildings.

Smith's second president, Marion LeRoy Burton, assumed office in 1910. A graduate of Yale Divinity School, President Burton used his considerable business acumen to help the college raise \$1 million, which he employed to increase faculty salaries and improve the faculty-to-student ratio. He also contributed to a revision of the curriculum and initiated a college honors program to recognize outstanding students. Burton was also instrumental in organizing a cooperative admissions system among Smith, Mount Holyoke, Wellesley, and Vassar, the finest women's colleges of the day and the core of what is now known as the Seven Sisters colleges. His accomplishments are commemorated today by Burton Hall, the science building that his fund drive helped to finance. By 1915, Smith students were spending from \$350 to \$1,850 a year on tuition, books, and room and board. The college also was well on its way to becoming one of the largest women's colleges in the world.

In 1917, William Allan Neilson, Smith's third president, began his 22-year tenure. Smith College historians credit him with firmly establishing Smith College as one of the leading educational institutions in the United States, and also developing it into an institution of international reputation with a concern for the world that went beyond campus limits. Between two world wars, he brought many important exiled or at-risk teachers, scholars, lecturers, and artists from troubled countries to the college. In 1924, the Junior Year Abroad program was conceived at Smith.

A year later, after Nielson's retirement in 1939, Herbert Davis took office, continuing what would be a century-old tradition of Smith appointing male presidents. During his administration, he reaffirmed the contributions ■ liberal college could contribute to a world in turmoil. Soon after the 1941 bombing of Pearl Harbor, the college opened the first officers' training unit of the Women's Reserves (WAVES) on its campus. The college also added a summer term from 1942 to 1945 so that some students could graduate more quickly and go on to government, hospital, or military service. President Davis's administration was marked by an intensified academic life, reflecting his belief that serious study was a way of confronting the global threat.

Benjamin Fletcher Wright came from Harvard to become Smith's fifth president in 1949. By then, the college had resumed its regular calendar and completed several necessary building projects including a new heating plant and student recreation center named for retiring President Davis. During President Wright's administration, Smith's financial position was strengthened greatly. By 1950, a \$7 million fund drive was completed. Again, campus facilities improved, and faculty salaries were raised. The college's first on-campus house of worship, the Helen Hills Chapel, was completed. By this time, Smith's Alumnae Association had grown to be a most devoted and active group. Before President Wright's term

ended, the college received a large gift for constructing a new faculty office and classroom building which now bears his name.

Smith's fifth president also had roots in the Ivy League. Thomas Corwin Mendenhall was installed as president in 1959, when both the country and college were experiencing peace and prosperity. The cultural changes ushered in during the 1960s brought a revised curriculum to Smith to accommodate the needs of an increasingly independent and ambitious student body. College-wide requirements were set aside and independent study encouraged. The college made more varied educational experiences available to Smith undergraduates by extending cooperation with four neighboring colleges. Smith also joined other private colleges in the northeast to develop the Twelve College Exchange Program. The college added buildings equipped with modern amenities to facilitate the study of the natural sciences, performing arts, and fine arts.

The impact of the women's movement had a profound impact on American society in the 1960s and 1970s. The times also served to confirm the original purpose of Smith College. In 1971, a committee of trustees, faculty, administration, students, and alumnae met to consider the possibility of Smith becoming coeducational. Vassar had begun to accept men for undergraduate study, and Yale, Princeton, and Dartmouth had started to admit women as candidates for degrees. The committee concluded that converting to a coeducational institution of higher learning would deflect from the founding purpose of the college: to make available the best possible education for women.

The college began its entry into its second century by inaugurating its first woman president, Jill Kerr Conway, who came to Smith College from Australia by way of Harvard and the University of Toronto. Her ten-year administration was marked by three significant accomplishments: 1) a large-scale renovation and expansion of Neilson Library; 2) the rapid growth of the Ada Comstock Scholars Program, through which women beyond the traditional college age could earn ■ Smith degree; and 3) a thriving fundraising program. In addition, the career development office was enlarged to better counsel Smith students and alumnae about career opportunities and graduate training. Responding to the growing importance on fitness and athletics for women, Smith erected Ainsworth Gymnasium and broke ground for new indoor and outdoor track and tennis facilities. In 1972, Smith College became the first women's college to join the NCAA, with tennis, basketball, and field hockey represented.

Former Bryn Mawr dean and history professor Mary Maples Dunn was installed as Smith's president in 1985. During the first five years in office, Dunn led the college to ■ successful realization of the largest fundraising campaign undertaken by a private liberal arts college. Of the \$163 million raised, \$18 million went to the expansion of the science center. President Dunn also lead a campus-



wide effort to fight racism and directed the installation of Smith Design for Institutional Diversity. The Design's goals currently are realized with increased numbers of faculty, staff, and students of color; an annual symposium on racism; and a special fund to incorporate material about non-Western or neglected American cultures in courses throughout the curriculum.

Smith's basic curriculum in the humanities (its long-standing strength) continues, with majors or interdepartmental programs in computer science, women's studies, third world development, neuroscience, film studies, Latin American and East Asian studies, history of the sciences, and other emerging fields. The October tradition called Mountain Day endures and the particular day is named by the incumbent president. Classes are suspended and students are urged to climb a mountain, picnic, or observe the beauty of autumn.

On July 1, 1995, Ruth Simmons was appointed as Smith's ninth president. She is the third consecutive woman and the first African American (at Smith or any of the other Seven Sisters) to assume the office. A Fulbright scholar with ■ Ph.D. from Harvard, she also served as vice-provost of Princeton University.

Distinguished Smith graduates include Julia Child (co-author of *Mastering the Art of French Cooking* and host-

ess of the popular television program, "The French Chef"); Betty Friedan (author of *The Feminine Mystique*); Meg Greenfield (editor, *Washington Post* editorial page and columnist for *Newsweek* magazine); Bettina Gregory (ABC News correspondent); Anne Morrow Lindbergh (author and wife of aviator Charles Lindbergh); Margaret Mitchell (author of *Gone with the Wind*); Sylvia Plath (poet and author of *The Bell Jar*); Nancy Reagan (wife of former U.S. president Ronald Reagan); and Gloria Steinem (feminist activist and author).

**Further Reading:** *The Insider's Guide to Colleges*, compiled by the staff of the *Yale Daily News*, (New York: St. Martin's Press, 1991), *Lisa Birbach's New and Improved College Book*, by Lisa Birbach (revised and updated ed., New York: Simon and Schuster, 1992), *Notable American Women 1607–1950*, edited by Edward T. James (Cambridge, Massachusetts: Belknap Press of Harvard University, 1971), *In the Company of Educated Women*, by Barbara M. Solomon (New Haven and London: Yale University Press, 1986).

—Michele Picozzi



# STANFORD UNIVERSITY

## (Stanford, California, U.S.A.)

<b>Location:</b>	In Stanford, approximately 30 miles south of San Francisco.
<b>Description:</b>	A private university that enrolls approximately 14,000 students. Almost 1,000 Stanford students are doctoral candidates, while the remaining 13,000 are evenly divided between graduate and undergraduate studies.
<b>Information:</b>	Admissions Office Old Union Room 232 Stanford University Stanford, CA 94305 U.S.A. (415) 723-2091
<b>Visiting:</b>	Guided tours can be arranged all year by contacting the admissions office at the above number.

Leland Stanford was a cofounder of the powerful Central Pacific Railroad, the company that built the western link of the first transcontinental railway. Stanford drove the spike that joined the two halves of the project. A political figure as well as a business tycoon, Stanford served a pivotal term as governor of California during the Civil War and later represented the state as a U.S. senator, from 1885 until his death in 1893.

For all his weighty contributions to West Coast progress, Stanford's legacy is dominated by his school of higher learning—Leland Stanford Junior University, built as a memorial to his only child, who died of typhoid fever just short of his 16th birthday, in 1884. Reports in the national press indicated that on the night following Leland Jr.'s death, Stanford dreamed of his son, who told his father, "Don't say you have nothing to live for. Live for humanity." When he awoke, Stanford is said to have affirmed, "The children of California shall be my children."

A decade earlier, in 1876, Jane and Leland Stanford had purchased land adjacent to the town of Menlo Park, on the San Francisco peninsula about 30 miles south of the city. Here they had 650 acres, which they named Palo Alto Farm. Eventually, the property would encompass 8,800 acres, and the Stanfords came to consider the farm their primary home. Almost immediately upon Leland Jr.'s death, the couple decided to use the farmland as the grounds for a tuition-free university.

As was his wont, Leland Stanford petitioned the best minds of the discipline to help lay plans for his university. He called on Harvard's Charles W. Eliot and Cornell's Andrew White, both of whom had been instrumental in leading American colleges away from their classical curriculum toward a more practical, democratic education based on the German model of a research-oriented faculty. Public infatuation with Stanford's proposal boosted his bid for the senate in 1885; meanwhile, his arch rival on the Central Pacific board, Collis P. Huntington, denounced the concept of the university as "Stanford's circus."

Despite Huntington's objections, the Stanfords heeded Eliot's advice and pledged to endow the university with \$5 million, a remarkable figure, comparable to Harvard's endowment at the time; ultimately, the couple would contribute a precedent-setting \$20 million to the university. In November 1885, a solemn ceremony took place at the Stanfords' San Francisco mansion, where 24 trustees were appointed. Leland Stanford's next step was to hire a president. Massachusetts Institute of Technology president Francis A. Walker turned him down but made recommendations for the physical layout of Stanford, suggesting the services of landscape artist Frederick Law Olmsted (who had designed New York's Central Park) and the Boston-based architectural firm of Shepley, Rutan, and Coolidge.

Olmsted wanted to build on the striking vista atop the foothills to the west of Palo Alto Farm, while Stanford demanded a more formal setting in the low-lying grainfields. Next, Olmsted proposed two diagonal thoroughfares leading from the quadrangle he designed to the nearby towns of Menlo Park and Mayfield; Stanford rejected that idea in favor of a straight road (Palm Drive) leading to the proposed community to be called "University Park," later renamed Palo Alto.

For the design of the Stanford buildings, Olmsted and the architectural firm's Charles Allerton Coolidge studied the sprawling, arched stone arcades of the Mediterranean. This time, their ideas coincided with those of Stanford, who wished to employ the noble Franciscan Mission styles that graced early California. Stanford University's cornerstone was laid on May 14, 1887—the birthdate of Leland Jr.—but construction on the primary quadrangle was painstakingly slow, as Senator Stanford's requirements in Washington made correspondence difficult. Olmsted and Stanford parted ways in 1890.

Coolidge and his crews completed the inner quadrangle by March 1891, leaving a lot vacant to accommodate Jane Stanford's plans for a majestic memorial church that



*Stanford University*

would serve as the campus centerpiece. By this time, Stanford had hired his president. Cornell's White had recommended a former protégé, Indiana University's 40-year-old president David Starr Jordan. "I might have found a more famous educator," a satisfied Stanford was quoted as saying, "but I desired a comparatively young man who would grow up with the University."

In his autobiography, Jordan detailed his two largest concerns about the job: the "discordant elements" inherent in "individualistic" California, and Leland Stanford's inescapable personal dominance over the project. Still, Jordan once explained, "When the evidence seems to be in, I like to say yes or no at once and take my chances." He accepted the day the offer was made. Jordan shared with Stanford an upbringing in upstate New York and a firm belief in career-oriented education and its opportunities for upward mobility. An enthusiastic Stanford presented his new president with a \$10,000 yearly salary for life.

Despite Stanford's commitment to excellence, staffing a faculty so far from the East Coast's center of intellectual activity proved difficult. A majority of Jordan's first appointments were professors cajoled away from Cornell

and Indiana, and the nation's press began calling Stanford "the Cornell of the West." On October 1, 1891, approximately 500 students—more than double the projected enrollment—gathered in the quadrangle to hear Stanford and Jordan speak. Of the 559 admitted that first year, nearly half were freshmen of the "Pioneer Class" of '95. So-called special students made up another 147; critics of Stanford's tuition-free status suggested that this group had failed the University of California's entrance examination.

Jordan instituted the "major professor" system he had used at Indiana; in it students chose a faculty member as an advisor in creating an individualized course of study. "Any pre-arranged course of study is an affront to the mind of the real student," Jordan said. The university required just one class of every student: English.

In the spring of 1892, Stanford held its first commencement ceremony, culminating in the first of a soon-to-be-ritualized seniors versus faculty baseball game. In the summer of that year, the Hopkins Seaside Laboratory was opened as an advanced facility for the study of marine wildlife, funded by trustee Timothy Hopkins, surrogate child of the San Francisco hotelier and Central



Pacific partner Mark Hopkins. The younger Hopkins also helped fulfill Leland Stanford's dream of building the town adjacent to the university that came to be known as Palo Alto. After Stanford had been rebuffed in his attempt to co-opt Mayfield (the town denied his request that it shutter its dozen liquor purveyors), he had charged Hopkins with the development of Palo Alto. By 1893, Hopkins had overseen the design of the town and the arrival of its first 750 residents.

The young university had lofty goals but a paucity of resources. The beginnings of its library consisted of 3,000 volumes from the Stanfords' personal shelves. The university did not yet have a bookstore, a student union, or a housing authority. The first two dormitories, the men's Encina Hall and the women's Roble (later Sequoia) Hall operated by the Stanfords as private properties, were not nearly large enough to accommodate the overflow of early students. During the first year of operation, dormitory residents were charged \$23 a month for room and board.

The early housing shortage resulted in many male students living at "the Camp," a series of whitewashed shacks previously occupied by campus construction workers. It was here that ideologues first fostered a "reverse class system" of sorts, in which refined culture was set aside in favor of the lifestyle of the common man. The "Roughs" of Encina Hall took up with those of the Camp and began what was to be an ongoing war of words with the "Frats." The campus hosted 5 fraternity chapters within its first year, 17 by 1898. By mid-decade, the men of the fraternities were challenging the Encina dwellers for control of the Associated Students of Stanford University (ASSU). Stanford had its first sorority by 1892, but only two more had joined the campus by the end of the decade.

In a decade marked by a steady increase in the numbers of women attending secondary schools, Stanford's first student body had 130 women. Still, at Stanford as elsewhere, women were not yet competing for the same careers as men. Jordan stressed that social evolution was marked by a commitment to the civilized home, one which could best be achieved under the watchful eye of a "wise, cultivated, and high-minded woman . . . To furnish such a woman is one of the worthiest functions of higher education," he wrote.

While Senator Stanford encouraged the children of Asian immigrants and black and Irish servants to apply to his university, few did. Apparently, only one black student enrolled in the early years. Students of Japanese heritage were by far the most populous minority on campus; by 1900, 19 Japanese-Americans were attending Stanford, enough to ensure the foundation of a Japanese Student Association.

In the spring of 1893, Senator Stanford presided over the second commencement ceremony. Several days later, he was dead at the age of 69. Stanford University's fund-

ing, which relied on the profits of the Stanfords' three California ranches, was suddenly held up in probate as the U.S. government filed a claim against the estate for its share of a \$15 million loan made to the Central Pacific Railroad Company. Assigned a \$10,000-a-month personal allowance, an enterprising Jane Stanford contributed most of it to the university. The community expressed its gratitude: merchants extended credit and faculty agreed to temporary cuts in pay.

After winning her battle with the government over her husband's estate and selling the family's share of the railroad company for \$11 million (earmarked for the university), Jane Stanford set about completing her vision of the campus layout. At odds with her was President Jordan, who wanted to direct the available funds toward the faculty and the student body. Bowing to Mrs. Stanford's wishes, Jordan began referring to the coming years as "Stanford's Stone Age." In 1899, Mrs. Stanford instituted a new policy: with women comprising nearly half of the students, she ruled that the number of Stanford females at any given time would be limited to 500, arguing that "the University must be a place for men"—in part because it was a monument to her son. In 1903, Mrs. Stanford oversaw the grand opening of the multi-denominational Memorial Church, the majestic anchor of the Inner Quad. She guided the completion of other new buildings, including a gymnasium and the Thomas Welton Stanford Library, and she watched the growth of the Leland Stanford Junior Museum to its status as the largest privately held museum in America at the time.

For the next few years, however, a series of misfortunes at Stanford would lead to a wistful nickname for the class of '06—"Calamity Class." First, an epidemic of typhoid fever broke out in April 1903. Two hundred cases were diagnosed over the course of a few weeks, but the hard work of the community, the Student Guild in particular, limited fatalities to eight. Two years later, Jane Lathrop Stanford died at age 75. Upon completion of the Memorial Church in 1903, she had relinquished to her fellow board members the daily duties of running the university. Shortly after her death, the board of trustees put the faculty at ease by declaring the period of active construction to be near a close; in the wake of the ten-year probate proceedings, the faculty, once handsomely compensated, had yet to return to the national average in salary.

On April 18, 1906, the university, like the rest of the Bay Area, was rocked by the San Francisco earthquake. On campus, two people were killed; many of the newly completed buildings were severely damaged, including the Memorial Church, which would not reopen until 1913. Although the church's imported stained-glass windows had somehow survived the disaster, the church's resurrection would ultimately require half the total cost of repairs.

On that same fateful day, President Jordan had received an offer to become secretary of the Smithsonian Institution. Although he had coveted the job, he now



declined it, saying, "I am sure my place is here . . . I shall stay with the poppies, the perfect sunshine, and the shadow of the great tremblor." Seven years later, after having successfully sustained the community's faith in the institution, Jordan stepped down to pursue his growing concern for global peace.

In 1908 Stanford acquired the Cooper Medical College of San Francisco and developed it as the Stanford Medical School, the first major academic addition to the university. Financing the facility quickly became a point of contention for many trustees, and in 1912 Stanford began its first campaign to raise money for its endowment. The university had begun charging out-of-state students a \$30 tuition fee; those from in-state families still attended free of charge, with the exception of a few dollars for "syllabus fees."

Jordan became increasingly involved in international peacekeeping. In 1909 and 1910, he took his only two sabbaticals from the university to deliver antiwar addresses abroad; in the latter year he was appointed head of the World Peace Foundation. When Pioneer Class alumnus Herbert Hoover was appointed to Stanford's board of trustees in 1912, he offered the outgoing president a nominal chancellorship at Stanford. Jordan's longtime vice president, the geologist John Casper Branner, reluctantly agreed to fill the presidential vacancy, but only for two years, until his scheduled retirement.

An interim leader, Branner nevertheless made his presence felt as he argued for better faculty wages and the salvation of many programs (such as the department of art), ■ campaign he waged successfully, with long-lasting implications. Branner's sole defeat involved his recommendation that the university divest itself of the medical school. Not only did Jordan and Hoover disagree with him, citing the program's practical applications, but they also proposed the relatively young Dean of Medicine, Ray Lyman Wilbur, '96, as their candidate to replace Branner upon his retirement.

In over 25 years as Stanford president, Wilbur would leave an indelible imprint on the university. One of his first incentives was to revive flagging scholastic habits. By 1916, two-thirds of the student community were involved with fraternities or sororities; Wilbur admonished them to improve their grades or risk losing their charters. The most pressing issue of Wilbur's early tenure, however, was World War I.

In 1917, amid much fanfare, Stanford sent its 18-member women's unit for relief work to France. David Starr Jordan's high profile as a proponent of peace, as well as Herbert and Lou Henry Hoover's campaign for Belgian famine relief, marked Stanford as ■ stronghold of pacifism. But Stanford's close ties to the German educational community aroused the suspicions of many war supporters—the Stanford motto, "*Die Luft der Freiheit weht*," was German, rather than Latin—and Wilbur and others on campus felt impelled to stress their support of U.S.

involvement as the conflict worsened. By 1916, in an increasingly patriotic atmosphere at the university, Jordan's chancellorship was left unrenowned.

One important aspect of wartime culture on campus was the presence of Stanford's female students, who by now outnumbered the men who had not yet been called to duty. Reporters and editors at the *Daily*, for instance, were mostly women. Physically, the campus continued to grow, with a new main library, and a new art gallery serving as the cornerstones of another quadrangle. And former Dean of Medicine Wilbur helped launch the Stanford Hospital in San Francisco. Wilbur also moved into the first home specifically designated for Stanford's president, a mansion at "The Knoll" designed by Golden Gate Park architect John McLaren. Meanwhile, Hoover and his wife reaffirmed their commitment to their alma mater by breaking ground on their new home on nearby San Juan Hill.

Under Wilbur, the "major professor" system was disbanded, and quarterly classes replaced the semester calendar, ensuring nearly year-round activity on campus. In 1923, "Problems of Citizenship" became the first course at Stanford required of all freshmen. Most significantly, in 1920 the university began charging tuition of all its undergraduates—\$40 per quarter, raised to \$75 by 1922. Stanford was inevitably moving toward a position of greater exclusivity.

Enrollment during the 1920s nearly doubled, to 4,600 students in 1929, and the university itself seemed to be entering adulthood. Systematically, departments of study at Stanford were united under the various roofs of disciplinary schools: education, biological sciences, law, letters, etc. Additionally, ■ graduate school of business—the nation's second, after Harvard's—was founded in 1924.

With Stanford's healthy endowment (which for a time was the country's largest), the trustees' fiscal conservatism was waning, as the university attempted profit-making experiments with various properties of the Stanford estate. In 1926, the Ryan High Voltage Laboratory was opened on Stanford Avenue with funding provided by several entities interested in electrical research (including the city of Los Angeles). One of Stanford's prized library holdings, the Hoover War Collection, was established by its namesake in 1919. The increasingly visible Hoover, formerly director of the U.S. Food Administration and Calvin Coolidge's secretary of commerce, won the Republican nomination for the U.S. presidency in 1928. Before a partisan university community, Hoover delivered his acceptance speech at Stanford Stadium, where it was broadcast to a huge radio audience. On election evening, his victory was announced from the lawn of his home at San Juan Hill, accompanied by 2,000 jubilant students' rendition of "Hail, Stanford, Hail."

Granted a leave of absence by the university, Wilbur joined Hoover in Washington as secretary of the interior. Hoover's presidency soon suffered the disaster of the Wall Street collapse. However, Stanford was thriving,

both fiscally and in the public imagination (homegrown athletes had won four gold medals in the 1928 Olympics), and few anticipated the upcoming hardships.

One of the ironic results of the Depression era at Stanford was the university's makeover into the "country club" of California schools, as fewer and fewer middle- and lower-class children could afford to forego hourly wages in exchange for education. With the number of male applicants dwindling significantly, in 1933 the board of trustees voted to rescind Jane Stanford's long-standing limit on the number of female students. By the end of the 1930s, the annual admission of over 1,700 female students had created an urgent need for expanded dormitory facilities.

Despite campus unrest at schools across the nation, the strong-willed Wilbur would not permit any censorship of topical discourse. In 1934, the so-called No-Fault policy went into effect, a controversial measure by which failing students could remain in school on their own determination. Earlier, in 1931, *Time* magazine had solidified the university's growing reputation as an elitist enclave ("more than half [the men] own automobiles"), and the *Chaparral* had eulogized the erstwhile working-class champion, the "Rough." Stanford was now often called "the Harvard of the West."

Although Stanford began to falter financially—its endowment income dropped to 75th in the nation in 1933—the university was consistently able to attract highly qualified staff members. The physicist Felix Bloch, for example, joined the university in 1934 and went on to become Stanford's first Nobel laureate in 1952. Beginning in 1937, the brothers Russell and Sigurd Varian conducted research that would lead to their invention of the klystron tube, a microwave generator that would in turn facilitate the invention of radar and launch the West Coast's microelectronics industry. In 1938, a new auditorium and library were dedicated in the name of the man who made the buildings possible: retired Dean of Education Ellwood Cubberley, an \$8,000-a-year professor who bequeathed a grand total of \$770,000 in stocks and bonds to the university.

As World War II loomed, the trustees convinced President Wilbur to remain in his office through the university's 50th anniversary ceremonies. Wilbur, a fervent supporter of U.S. intervention in World War I, encouraged students not to hasten to enlist: "An engineering student who can . . . make an airplane go 20 miles faster per hour is worth 100,000 men in uniform," he said. Upon Wilbur's belated retirement in September 1943, Donald B. Tresidder, '19, a former president of Yosemite Park, became Stanford's fourth president.

Despite Stanford's long experience with Asian studies, in May 1942, the campus gave in to nationalist sentiment, sending its Japanese Americans (including a retirement-age history professor, Yamato Ichihashi) to internment camps. By 1943, the Stanford campus was hosting some

2,400 soldiers under the auspices of the Army Specialized Training Program, with the president's house on the Knoll serving as a Women's Army Corps (WACs) barracks for trainees. Once again, the depletion of the number of men on campus left vacancies for women to fill: Janet McClanahan ('44) could assume the student body presidency only after an amendment to the university's constitution; the office floor at the *Daily* was reported to be covered with "lipsticked cigarette butts." However, also in 1944, Dean of Women Mary Yost ruled that sororities would be expelled from campus. When Tresidder was faced with the sudden loss of 3,000 student-soldiers to the war effort, he declared, "Our real business is not training men for war but training young people for peace. We'll go on with our original business." Tresidder was unable to see his commitment fulfilled: in 1947, at age 53, he succumbed to a heart attack.

On April 1, 1949, J.E. Wallace Sterling began a 19-year tenure at the helm of the university. By the end of his administration, enrollment had climbed to 11,400, and Stanford had returned to financial prosperity. Thirty new buildings were added to the campus during Sterling's stay ("the second Stone Age"), including the Tresidder Memorial Union, the Bowman Alumni House, and a sprawling science complex.

During the 1950s, other events on campus reflected the country's progressive atmosphere. The Stanford Museum, closed since the war, reopened to display its impressive new holdings. In 1958, Stanford opened its first overseas campus, in Beutelsbach, Germany. By 1961, Stanford had opened other extensions in Italy, France, England, and Austria. Through 1961, five Stanford scientists were awarded the Nobel Prize. Provost Frederick Terman created avenues of discussion between the university's researchers and California's applied-science industries, earning him the nickname "Father of Silicon Valley."

To accommodate the growing student population and a promising future, Sterling introduced his unprecedented "Plan of Action for a Challenging Era," a proposal for raising \$100 million in three years. Before Sterling's arrival, Stanford had raised a total of \$31 million in support money; in his 19 years leading the university, the figure reached \$329 million.

At Stanford as elsewhere, the 1960s ushered in an unprecedented commitment to social activism. In 1966, students staged a sit-in at Sterling's office to protest the university's compliance with U.S. draft policies. A year earlier, the Stanford Sexual Rights Forum had become the first student organization to demand an end to discrimination based on sexual preference. Meanwhile, two fraternities challenged their national organizations over regulations which forbade the admission of black and Jewish members. In 1968, upon the assassination of Reverend Martin Luther King Jr., 40 black Stanford students burned an American flag on White Plaza.



Amid the upheaval, the university continued to erect new academic structures and to attain other academic achievements. The J. Henry Meyer Undergraduate Library and the Graduate School of Business building were completed; Dr. Norman E. Shumway's heart-transplant research was carried out for the first time; Stanford professors announced their success in reproducing DNA; and Nobelist Linus Pauling joined the faculty. But the well-liked Sterling retired in 1968, leaving the difficult job of holding together a divisive campus to former Rice University president, Kenneth Pitzer. As Pitzer took office, Stanford's faculty was displaying its own antiwar sentiment: the academic council stripped ROTC classes of their course credits, and the board of trustees ended the school's 20-year relationship with the Stanford Research Institute, citing the institute's classified work for the Defense Department. On October 15, 1969, 8,000 community members conducted a protest of the Vietnam War on the Stanford campus. Later in that school year, after more student demonstrations and an academic strike, a demoralized Pitzer resigned. Provost Richard W. Lyman accepted the challenge of the presidency, declaring, "A comfortable university is virtually a contradiction in terms. We exist to disturb and activate the minds of men and women."

As campus radicalism waned, another fundraising drive was begun in 1972, with a lofty five-year goal of \$300 million. With 54,000 donors and 5,000 volunteers, the long campaign closed \$4 million above projection. Acting swiftly on the financial windfall, the administration raised the number of endowed faculty members from 49 to 125 and directed \$35 million toward student scholarships, fellowships, and loans. In 1978, the Herbert Hoover Federal Memorial was dedicated at Stanford, directing renewed attention toward the Hoover Institution on War, Revolution and Peace, a remarkable collection of 1.5 million documents most famously visited in 1975 by Soviet dissident Alexander Solzhenitsyn in preparation for his landmark study of the Bolshevik Revolution.

In 1980, the proven fundraiser Lyman stepped down from the president's post to accept the presidency of the Rockefeller Foundation. Vice President and Provost Donald Kennedy, a renowned biologist and commissioner of the Food and Drug Administration, took Lyman's place

and promptly established the Stanford Humanities Center.

More honors awaited Stanford and its alumni: the Supreme Court welcomed the appointments of four Stanford alumni: Sandra Day O'Connor, William Rehnquist, Anthony M. Kennedy, and Stephen Breyer.

The 1989 Loma Prieta earthquake in the Bay Area hit Stanford with \$160 million in damages—750,000 books needed reshelving, and repairs to the Stanford Museum of Art forced its closure until 1997. In the wake of a nebulous financial scandal, Kennedy stepped down in 1992, making way for Gerhard Casper. Still, the university flourishes: of Stanford's 19 Nobel laureates, 11 continue an affiliation with the university. Fundraising has boomed: in 1994, Stanford was able to muster \$226 million in a single year. By then, its overall endowment had topped \$3 billion. Visitors to campus tour such landmarks as the 285-foot Hoover Tower, with an observation deck scanning the South Peninsula; the Rodin Sculpture Garden, with 20 works by the artist; and the Stanford Linear Accelerator Center, where research is conducted for the U.S. Department of Energy.

**Further Reading:** An interesting biography of the "founding mother" of Stanford is *Jane Stanford: Her Life and Letters* by Gunther Nagel (Stanford, California: Stanford Alumni Association, 1975), revised as *Iron Will: The Life and Letters of Jane Stanford* by Gunther Nagel (Stanford, California: Stanford Alumni Association, 1985). *The Stanford Album: A Photographic History, 1885–1945* (Stanford, California: Stanford University Press, 1989) has a comprehensive text by Roxanne Nilan, and includes photographs. Equally helpful is *The Stanford Century* by Linda Winthrop Peterson (Stanford, California: Stanford Alumni Association, 1991). Peter C. Allen's *Stanford: From the Foothills to the Bay* (Stanford, California: Stanford Alumni Association and Stanford Historical Society, 1980) offers many vignettes with profiles of members of the Stanford community. To view Stanford in relation to its environment, read Ward Winslow's *Palo Alto: A Centennial History* (Palo Alto, California: Palo Alto Historical Association, 1993).

—James Sullivan



# STATE UNIVERSITY OF NEW YORK (New York, U.S.A.)

<b>Location:</b>	The central office is located in Albany, New York, the state's capital.
<b>Description:</b>	A unified statewide system of 64 campuses enrolling approximately 400,000 students. It is the nation's largest single, most diverse multi-campus university.
<b>Information:</b>	University Relations State University Plaza Albany, New York 12246 U.S.A. (518) 443-5378

Although the State University of New York (SUNY) has roots dating from the 1700s, not until 1948 was the university actually created. The university has made dramatic progress since its founding. In less than half a century more than 1.4 million men and women have been graduated from SUNY.

When New York's state legislature held its first session after the American Revolution, a proposal was offered that a state university be established and that it be modeled on the French system of higher education, which featured many institutions controlled by a central administration. A state board of regents was appointed to oversee New York's educational programs (from the elementary grade to graduate and professional schools) and to start new colleges. The goal of developing a state university came up for discussion many times. However, the idea was usually dismissed in the early stages because a state university represented a threat to the enrollments of the private colleges and universities in New York State.

Before SUNY was created, there existed an unofficial form of public education, consisting of 138 private institutions, and 32 public colleges that acted independently of one another, without coordination or statewide goals and policy. The public colleges consisted of 11 teachers colleges, 6 agricultural and technical institutes, 5 institutes of applied arts and sciences, a maritime academy, and 9 other institutions managed for the state, under contract, by private institutions. Absent were public liberal arts colleges or research institutions. Consequently, each year thousands of New York's youth left the state to enroll in public universities in other states.

Before World War II, the state regents' support for higher education in New York was confined to providing funds for scholarships and to coordinating educational

policy with private institutions. The aftermath of World War II provided the impetus for the founding of SUNY. As servicemen returned, they applied to colleges in large numbers, thanks to the funds provided by the G.I. Bill. New York, however, was unprepared to accommodate the servicemen and minorities who were seeking places in colleges. Responding to the pressures from these groups to establish a free state university system, the legislature of the last state in the nation without a free university system began serious deliberations directed to creating such a system.

Governor Thomas E. Dewey proposed "The Temporary Commission on the Need for a State University," which was later approved by the legislature. The commission was a 21-member blue-ribbon assembly led by Owen D. Young, former chairman of the General Electric Company. The commission's 18-month study came to the following conclusions:

- Less than half of New York's high school graduates in the top 25 percent of their classes went on to college; the rest of the quartile, plus many other students qualified to benefit from a college education, simply could not afford the high tuition and room and board fees of private colleges and universities.
- Some members of New York's large minority groups had difficulty gaining access to educational facilities on an equal basis with white students.
- The state's higher educational student population had expanded to 310,000, or 50 percent above the prewar figure, as a result of veteran and expanded nonveteran enrollment and would continue to. Further expansion of existing institutions could not meet either the present or prospective demands.

Despite the commission's unanimity, opponents quickly appeared to plead that establishing a state university would force many of New York's private colleges and universities to close. Further heated debate occurred over the administrative issue as to whether the university would report to the governor or the board of regents. However, the commission's recommendations prevailed. On March 12, 1948, the legislature passed a law establishing the State University of New York, effective July 1, 1948. Governor Dewey signed the bill on March 30, and on August 16, he selected a temporary 15-member board of trustees for the new SUNY.

The SUNY board had a challenging task. Besides organizing the 32 public colleges into a distinct, coordi-



*State University of New York, Albany*



nated body, the board was ordered to plan the growth of two health and medical centers, overhaul the teachers colleges' curricula, and establish "such four-year liberal arts colleges, professional and graduate schools, research centers, or other facilities, including an integrated university located on a single campus, as deemed necessary." The board was also directed to develop a master plan "as a long-range guide to the localities and the state in establishing and developing community colleges."

Since SUNY's founding, an issue of nomenclature has caused confusion. A university publication explains:

The State Board of Regents, together with the State Education Department, come under the umbrella of the "University of the State of New York," a venerable title more than 200 years old. The emergence of the "State University of New York" has resulted in public confusion that exists to this day.

During the late 1940s and all of the 1950s, the country's youngest state university system focused on developing the structure, policies, procedures, and programs that would create a strong foundation for the university's future. SUNY's first president, Alvin C. Eurich (1949–51), oversaw the formation of the university's administrative staff, and the draft of the first SUNY master plan. The arrival of the 1950s brought welcome news. SUNY received its official accreditation from the Middle States Association. About the same time, the university created the Research Foundation of the university, a distinct corporation authorized to accept funds from public and private sources and to disburse them for research or relevant purposes at the campuses.

For a short time, enrollment remained steady, and then it slowly began to increase. SUNY's student population leaped from 30,910 in 1955 to 63,721 in 1959, a growth rate about three times the national average. However, constructing buildings to accommodate the students moved slowly, and space shortages were becoming a great problem. Although funding was available through \$250 million in construction bonds, state policies were complicating construction progress. By the decade's end, the trustees claimed thousands of applicants were being turned away due to lack of space.

One of Nelson A. Rockefeller's first acts as new governor of New York in 1959 was to appoint a Committee on Higher Education, which would report directly to the governor and would study all the higher education needs in New York, as well as all higher education facilities. The committee's findings advised that, unless action was taken immediately, New York's students would soon not be able to obtain a quality public education in the state. "The State University," the 1960 report said, "appears to have less administrative and management freedom of operation than almost any other publicly supported institution or group of institutions in the United States." The

committee's chairman, Henry T. Heald, recommended that SUNY be released from the bureaucratic mandates that limited its effectiveness. Several important changes resulted: Legislation gave the SUNY chancellor more authority for unclassified civil service positions, and it allowed SUNY budget requests to be forwarded directly to the governor, instead of going through the state's education department. An amendment was also made to the education law which separated SUNY from the administrative supervision and control of the regents.

The Heald Committee also recommended that SUNY be granted greater freedom in beginning construction work to build needed instructional facilities. (At that point, enrollment exceeded 150,000 and was rapidly expanding.) The real driving force behind this construction proposal was Rockefeller and his dedication to SUNY's success. Due to his efforts, a semi-independent agency called the State University Construction Fund was set up to issue construction bonds to meet the university's massive building needs. Tuition, fees, and other university receipts would be used to pay the debt service with little more than the state's moral pledge that the bonds would be paid. With cost estimates of \$3 billion, the project was heralded as the largest single construction program in the history of American higher education.

More changes were to come. Because of the Heald Committee's recommendation, the trustees announced a major decision to "establish a modest uniform tuition fee of \$400 per year—effective in 1963." The monies were to enable SUNY to amortize its complete building process. Thomas H. Hamilton, the university's third president (1959–62), in concert with the trustees, guided the evolution of 11 colleges of education into multi-purpose arts and sciences colleges. Concurrently, the private University of Buffalo was brought into the SUNY system.

By the end of the 1960s, the Heald Committee had fulfilled its final mandates. The goal to expand the community college system was realized. Because of the committee's activities, there was a college within a reasonable distance of many of the state's residents. Four regional graduate centers had also been established—in Buffalo, Albany, Binghamton, and Stony Brook. Although, in the 1960s, the Heald Committee played an important role in SUNY's progress, Governor Rockefeller left the greatest impact on the university. Many times he used the strong influence of the governorship in efforts to distinguish the university, and he made financial sources available to achieve its goals. Consequently, his administration brought the period of SUNY's greatest growth.

Samuel B. Gould (president and later chancellor, 1964–70) served during the swiftest and greatest growth period, as SUNY surged from 57 to 68 institutions, and from 150,000 to 286,000 students. The faculty itself grew from 9,800 to 14,900.

At the start of the 1970s, SUNY was offering more than 3,700 academic programs to over 321,000 students.



Fortunately, the greatest part of this construction program has been completed, since this new decade brought a problem unique to the university's history: severe budget restraints. SUNY reacted by decreasing enrollment goals, dismissing hundreds of employees, leaving many vacated professional positions unfilled, and eliminating several research programs. Tuition was raised to fund construction-in-progress. SUNY's monumental growth rate was slowing for the first time since 1948. The Chancellor's Panel on University Purposes (1970) and the University Commission on Purposes and Priorities (1975) were formed to determine how new cooperative alliances among the campuses could be educationally as well as fiscally beneficial. During the frequent budget crises, the campuses worked together under the SUNY name to make their needs known to the governor and legislature. By the end of the 1970s, SUNY had changed its major focus from building campuses to creating a more effective, efficient system. This new attitude resulted in the development of the Multi-phase Rolling Plan (MRP) in 1980. Its goal was to coordinate "SUNY's educational services and priorities with both public needs and available state resources."

Today, SUNY encompasses a unique system of traditional four-year colleges, research university campuses, academic health science centers, community colleges, colleges of technology, and specialized and statutory col-

leges. Besides four medical schools, SUNY operates three health science centers, specialized colleges of optometry, environmental science and forestry, and a maritime college. Empire State College, SUNY's nontraditional school, offers degree programs through self-paced independent study, and distance learning is available via mentors all over the state.

D. Bruce Johnstone, seventh chief operating officer (1988-94) was chiefly responsible for the planning document "SUNY 2000: A Vision for the New Century." The plan puts "special emphasis on SUNY as a key player in meeting state needs in health care, public education, economic development, social services, and the environment."

**Further Reading:** For a comprehensive view of the history of SUNY, consult *Sixty-Four Campuses: The State University of New York to 1985* (Albany, New York: Office of University Affairs and Development, 1985). Nelson A. Rockefeller's important role in the development of the university system is discussed in *The Rockefellers: An American Dynasty* by Peter Collier and David Horowitz (New York: Holt, Rinehart and Winston, 1976).

—Darlene Maciuba-Koppel